

MADRAS RECORD OFFICE.

Government of Madras.

Public **DEPARTMENT.**

G.O. No.	1261	Press ~~Mis.~~
Dated	11-10-	1967

Not to be folded or roughly handled

[Handwritten signature]

Government {1867} of Madras.
PUBLIC.

Recd.

Enclosures

} 1867.

Regd.

Spare copies

G.O., No. 1261, 11th October 1867.

OCTOBER.

Nos. 105, 106.

Sanitation.

Papers from the Government of the North-Western Provinces regarding the fair which took place at Hurdwar, on the Ganges, in April last, recorded.

GOVERNMENT OF MADRAS.

PUBLIC DEPARTMENT.

READ—the following paper:—

No. 105. From F. HENVEY, Esq., Under Secretary to Government, North-Western Provinces, to the Secretary to Government, Fort St. George, dated Allahabad, 21st September 1867, No. 835.

General Department.

I am directed to forward to you, for the information of His Excellency the Governor of Madras, the accompanying two copies of the Resolution of His Honour the Lieutenant-Governor, regarding the Fair which took place at Hurdwar; on the Ganges, in April last.

ENCLOSURES.

From E. C. BAYLEY, Esq., Secretary to the Government of India, Home Department, to the Secretary to Government, North-Western Provinces, dated Simla, 3rd August 1867, No. 3020.

I am directed to acknowledge the receipt of the Resolution passed by His Honor the Lieutenant-Governor regarding the arrangements made for maintaining order and security at the late Hurdwar Fair, copy of which was forwarded under cover of your endorsement, No. 2374A., dated 18th ultimo.

2. The Governor-General in Council has noticed with great pleasure the prudent arrangements which have been so discreetly and energetically carried out by the Commissioner of Meerut, and the other Officers of various departments, and all ranks named in the Resolution.

3. It has afforded His Excellency in Council no less pleasure to learn that the people in general, as well as the Native Chiefs assembled at one of the largest fairs ever known at Hurdwar, obeyed the orders of the authorities with alacrity, cheerfully conforming to the regulations established, and that they loudly and constantly expressed their gratitude and satisfaction with the efforts made for the well-being and comfort of all.

4. The proposal contained in paragraph 14 of the Resolution, for the appointment of a special Sanitary Officer for the North-Western Provinces, will be taken into consideration separately.

5. I am to add, in conclusion, that the proposals contained in paragraphs 15 and 16 will be forwarded to the Financial Department for consideration and orders.

From E. C. BAYLEY, Esq., Secretary to the Government of India, Home Department, to the Secretary to Government, North-Western Provinces, dated Simla, 10th August 1867, No. 3255.

I am directed to acknowledge the receipt of your letter of the 18th ultimo, No. 2378, forwarding the reports of the local Officers on the arrangements made during the late Hurdwar Fair for maintaining order and security, as well as good conservancy, among the mass of pilgrims assembled there.

2. The Governor-General in Council has already, in my letter, No. 3020, dated the 3rd instant, expressed his satisfaction with the result of these arrangements, as shown in His Honor's Resolution of the 18th ultimo, No. 2374A., and a perusal of the detailed reports now submitted has still further convinced His Excellency in Council that the measures adopted at the Fair were most creditable to all the Officers concerned. The Governor-General in Council notices with especial pleasure the exertions of the Commissioner of the Meerut Division, Mr. Williams; the Medical Officer, Dr. Cutcliffe; the District Superintendent of Police, Major Watson; the Magistrate of Seharunpore, the late Mr. Robertson; and of the Officers of the Canal Department.

3. The reports submitted with your letter under reply will be published in the Supplement to the *Gazette of India*.

No. 2901A.

GENERAL DEPARTMENT.

Dated Nynce Tal, 27th August 1867.

Ordered that copy of the foregoing be forwarded to the Commissioner of the Meerut Division for information.

No. 2902A.

Copy forwarded to Under Secretary to this Government, in the Public Works (Irrigation Branch) Department, for information and communication to the Officers concerned.

Nos. 2903-2904A.

Copies forwarded to the following gentlemen:—

Dr. Cutcliffe and Major Watson.

C. ROBERTSON,
Junior Secy. to Govt., N.W.P.

From R. SIMSON, Esq., Secretary to Government, North-Western Provinces, to the Commissioner of Meerut, dated Camp Agra, 19th February 1867, No. 490A.

It is believed that the number of pilgrims who are likely to assemble at the approaching Hurdwar Fair will be very much larger than usual, and the Lieutenant-Governor presumes that the Collector of Seharunpore has already made all the necessary arrangements for the supplies of grain and other provisions required by the multitude.

2. His Honour also trusts that very special attention has been paid to the conservancy and sanitary arrangements in and near the town. It is especially important that measures should be adopted for the daily removal and deodorization of the accumulated filth, as a precaution against the outbreak of an epidemic.

3. The Civil Surgeon of Seharunpore will probably be able to superintend the medical and sanitary arrangements and you are requested to apply to the Deputy Inspector-General of Hospitals of the Meerut Circle for any assistance he may be able to give in the supply of medicines, and it may possibly also be in his power to detach a few Native doctors, or other medical subordinates, for temporary duty at the fair.

4. Doctor Pearson the Superintendent General of Vaccination, may be able to assist in a similar manner, and you will be good enough to apply to him direct on the subject. Should any further aid be needed, I am to request that you will make a reference at once to Government.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North-Western Provinces in the Police Department, dated 31st May 1867, No. 45A.

From Lieutenant C. A. DODD, Personal Assistant to the Inspector-General of Police, to the Secretary to Government, North-Western Provinces, dated Nynce Tal, 6th May 1867, No. 1934.

I am desired by the Inspector-General of Police to submit, for the favorable consideration of His Honor the Lieutenant-Governor, copy of a report received from Major Watson, District Superintendent of Seharunpore, regarding the Police arrangements at Hurdwar, and the conduct of the Constabulary employed there, together with a copy of a complimentary order issued by Major Davis, Deputy Inspector-General, who was present at the fair.

2. The Inspector-General has the greatest satisfaction in bringing to the notice of His Honor the great ability and foresight with which the arrangements were made and carried out by Major Watson, and the excellent behaviour of the Police of all grades. Too much praise cannot be awarded to both officers and men for their admirable conduct on this occasion, and for their great devotion to the onerous duties which devolved upon them. The best reward which will present itself to every man's conscience is the gratitude he has earned from the people. Hundreds of thousands of people from all parts of India are returning to their homes, impressed with the benevolence of the British Government, and carrying back with them the story of how the millions congregated at Hurdwar were received by the Government, and cared for by the Police. The best

proof of this is the readiness with which the people on their way back sought the aid of the Police in their difficulties. The Inspector-General is of opinion that the force at Hurdwar has done much to raise the Department in the estimation of the public, and the Inspector-General tenders his best thanks to Major Watson, and to every officer and man of the Police employed at the fair, and heartily congratulates them on the eminent success which has attended their efforts.

3. The Punjab Police under Mr. Jones, Assistant District Superintendent, vied with their brethren of the North-Western Provinces in devotion to their duty and orderly behaviour, and rendered most valuable assistance.

4. The Jat horse, too, from Meerut, by their steady behaviour and obedience to orders, contributed much to the preservation of order, and ably seconded the Police officers in their arduous duties.

5. The Inspector-General wishes to bring prominently to notice of His Honor the excellent service rendered by Major Watson, under whose orders all the Police arrangements were made and carried out. Captain Bramley, District Superintendent of Mozuffernugur; Mr. Jones, Assistant District Superintendent, Punjab Police; Mr. Pocock, Assistant District Superintendent of Dehra, are also commended to the favorable consideration of Government for the zeal and ability with which they co-operated with Major Watson. The names of Inspectors Foster, Liakut Hossein, Sobhan Beg, Abdool Rahman Khan, and Shere Ally; Sub-Inspectors Goor Pershad, Gopal Singh, Davee Singh, Deen Dyal, and Mool Chund; and 1st Grade Head Constable Dowlut Singh, are also recorded by Major Watson as having rendered him most valuable assistance. To these names Mr. Mayne would add that of Inspector James Gardner, who was employed as Assistant Sanitary Officer, and who received special certificates of good conduct, both from Major Watson and Dr. Cutcliffe.

6. Special credit is also bestowed on Inspectors Mooktear Singh, Abdool Razak, Ameer Singh, and Sochee Willayut Khan, of the Punjab Police.

7. A separate bill will be submitted to Government for the remuneration, at Rupees two per man, for the village Chowkeedars, who were collected to supplement the Constabulary.

8. Major Watson represents that at the Mahabarnee Fair the Police, from the rank of Inspector downwards, received double pay while the fair lasted, and on behalf of the Constabulary, who acted so well on this occasion, Major Watson solicits the like boon. Mr. Mayne recommends that a reward of one month's pay be given to all the Police of the North-Western Provinces and Punjab, from Inspectors downwards.

(COPY.)

From Major J. T. WATSON, District Superintendent of Police, Seharunpore, to the Inspector-General of Police, North-Western Provinces, Nynce Tall, dated Seharunpore, 20th April 1867, No 97.

I have delayed writing the report you directed me to send you regarding the Police arrangements at Hurdwar, and the conduct of the Constabulary, because I have not felt well, and I have each day hoped I should be fitter for the task by putting it off to the next; but as I do not get better, and as others are looking to me for a recognition of their excellent behaviour, I have determined to attempt a short account of what took place, so far as it was connected with the Police.

2. The Maha Coomb Fair, now just over, was one of the largest ever known at Hurdwar. The pilgrims and fakeers commenced arriving a month before the great bathing day, and gradually increasing numbers came flocking in, up to within a few days of the appointed time, when a vast crowd poured into the place in one unbroken column night and day; this surging mass kept moving in till the neighbourhood of Hurdwar for miles was densely populated, and the roar of the multitude sounded like a disturbed sea.

3. Arrangements for the reception of these people had long been in progress, and were completed when they actually arrived; and so it happened that when this crowd (numerous as the population of a large country) reached Hurdwar, they found they had only to take possession of a vast city already prepared for them, complete in all its details, with roads, market places, bridges, and ghats. In short, they found order and method awaiting them; hence there was no confusion and no alarm; all settled down in their appointed places, feeling from the first a confidence in the system so carefully prepared for them. They found, too, perfect arrangements for sanitation, simple rules and ample accommodation, a staff of sweepers, and all other requisites, the whole of the result of Dr. Cutcliffe's untiring energy and determination.

4. But it would be tedious to describe the particulars of all that had been done by the Magistrate, by the Canal authorities, and by the Sanitary Officer and others in their different departments. I will therefore pass on to the matter now under consideration, namely, the conduct of the Police.

5. Hurdwar and its environs were divided into five districts, as follows:—

- I.—The Island Roree, under the Police jurisdiction of Captain Bramley.
- II.—Jowalapore, under Mr. Jones, Assistant Superintendent, Punjab Police.
- III.—Kunkhul, under Mr. Pocock, Meerut Police.
- IV.—Hurdwar, under Mr. Foster of Allygurh.
- V.—And the Dehra side, under its own local officers.

These circles were worked as districts, and were sub-divided into stations and smaller posts; a system of reports was established, and the whole was supervised and worked by me.

6. The conduct of the officers in charge of circles was most excellent, and I feel greatly indebted to them for having shared and lightened my responsibilities, and for having laboured with me heart and soul in bringing our duties to a successful conclusion.

To Captain Bramley praise is due for his cheerful desire to do his duty, and his willingness to assist.

Mr. Jones deserves credit for his excellent arrangements at Jowalapore, and for his subsequent success in managing the bridges leading to and from the Island of Roree. This officer exhibited a smartness and capacity in all he undertook, and worked in the most satisfactory manner. I hope the Inspector-General may think proper to acknowledge his services.

Mr. Pocock, at Kunkhul, upheld the good character he has long acquired, and was scarcely ever out of his saddle; he managed one of the most important duties connected with the fair in a most able manner—I mean the marshalling of the different processions of fakeers.

Mr. Foster, in Hurdwar, gave the greatest satisfaction; to capacity he added zeal, and to intelligence activity. On him much depended, and he faithfully fulfilled the duties entrusted to him.

Mr. Pocock, on the Dhoon side, worked to a great extent independently of our special arrangements; but whenever I came in contact with him, I had reason to feel that he was a most pains-taking officer.

In short, I beg to be permitted respectfully to congratulate the Inspector-General on the admirable selection of officers appointed to assist in the Police arrangements, and I sincerely trust the few remarks I have made will induce Mr. Mayne to recognize the good conduct of the officers I have named. I am sure they deserve commendation, and I am equally certain they will, greatly prize the good opinion of their Inspector-General.

With regard to subordinate officers, I beg to mention the names of the following Inspectors and Sub-Inspectors as having particularly distinguished themselves:—

Inspector Liakut Hossein, who had charge of the sacred ghat, and worked night and day at his arduous post; Sobhan Beg, who assisted Mr. Foster in Hurdwar; Abdool Ryman Khan, who did well at Roree; Shere Ally, who assisted in the sanitary arrangements in the city.

Amongst the Sub-Inspectors, the most conspicuous were—Goor Pershad; Gopal Singh; Davee Singh; Deen Dyal; Mool Chund; and Dowlut Singh, 1st Grade Head Constable.

The Punjab Police behaved in every respect as well as our own men, and special credit is due to Inspectors Mooktear Singh, Abdool Razak, Ameer Singh, and Sochee Willayut Khan.

As to the men of the Constabulary, they have won golden opinions; their good conduct has gained them the approval of all who witnessed their untiring zeal, and the intelligent manner in which they did their work has made them many friends.

Their kindness to helpless and aged people, their tenderness to children, and sympathy with distress, took many by surprise, and I candidly own I did not give them credit for such noble qualities. The work was excessive and constant, and yet with very few exceptions no one was remiss.

The Chowkeedars also did excellent service; their case is worthy of consideration. For more than a month they were absent from their villages, and obliged to purchase their food at exorbitant rates. I respectfully urge that their pay should be increased for that month to at least six rupees instead of three, and even then it will be barely a compensation, certainly not a reward.

At the Mahabarnee the Police, from the rank of Inspector downwards, received double pay while the fair lasted; on behalf of the Constabulary, who acted so well on this occasion, I solicit the like boon.

A great success has been accomplished, and chiefly through good conduct of the Police. To mark the approval of Government by a judicious reward will give encouragement to the whole force, besides being an act of consideration to those immediately benefited.

I have not attempted to give an account of the manner in which we worked our barriers and signal flags, or of the way in which we marshalled the crowds and kept the roads; all these matters are on record, and the details available for the instruction of those who may have to undertake the duty we have now accomplished.

Before concluding this report, I desire to remark on one most pleasant circumstance, and that is, the happy effect our successful exertions have had on the Natives. Hundreds of thousands of persons are now returning to their homes in all parts of India, their hearts overflowing with gratitude, and their minds deeply impressed with the genius, the power, and capability for systematic arrangements exhibited by their rulers.

Government officers received a perfect ovation from the crowds, as batch after batch of pilgrims commenced their return journey, and one expression became current amongst them, and was frequently repeated—"These English are not men—they are gods." This and the familiar shout, "Prosperity to the English rule!" was taken up again and again by the pilgrims.

EXTRACT from Order Book by Major W. DAVIS, Deputy Inspector-General of Police, dated Camp Roorkee, 13th April 1867.

The great event of the Hurdwar Fair of 1867 having come to a close, it is the pleasing duty of the Deputy Inspector-General, who witnessed the success which attended it, to place on record (for such notice as the Inspector-General may think fit to take of it) his sense of the exertion made by the force to ensure health, tranquillity, and the good will of the millions who attended the festival.

2. The concourse is estimated by the Natives themselves as exceeding $2\frac{1}{2}$ crores, and from the approximate calculations it was possible to make, and the area of ground occupied by the multitude, there is no reason to consider this number exaggerated.

3. Former "Combs" have come and passed, none without apprehensions, which have been generally realized in great insecurity of person and property; it is, therefore, by comparison that success can best and most justly be meted, and it remained for 1867 to show the good effects of a systematic Police discipline which has achieved results unprecedented even in reference to the ordinary festivals of the locality, and is deserving of all praise, when it is considered that the occasion adverted to is such as it has never fallen to the present generation to witness, or is likely to recur within the probable existence of any now living.

4. The details of the general scheme which, under Major Watson, District Superintendent, Seharunpore, has ensured these happy results, it will be for that officer to report; it will here be sufficient to briefly state that every man in the North-Western Provinces Police force, aided strenuously by the auxiliaries from the Punjab Police and the Jat force, did their duty in a way deserving of the highest commendation. The incessant toil of men, for whom there were no reliefs over an extended period, has to be witnessed to be appreciated; none murmured, whilst the force cheerfully extended their labours in assisting Dr. Cutcliffe in those excellent sanitary arrangements to which may fairly be attributed the absence of disease during the fair. The casualties to life and property were absolutely *nil*. Crime was deterred by the respect the multitude felt for a force whose good conduct and vigilance were everywhere perceptible; and it is satisfactory to record that this feeling of respect and good-will to the Police extended itself expressly to the highest Native potentates who were present; and the general satisfaction felt cannot but add to the prestige of British arrangements and quiet power, even in its times of peace.

The thanks of the Department for this success are then due to Major Watson, and every man of the force who contributed to it.

From C. ROBERTSON, Esq., Junior Secretary to Government, North-Western Provinces, to the Inspector-General of Police, dated Nynee Tal, 31st May 1867, No. 395-A.

I am directed to acknowledge the receipt of your Personal Assistant's letter, No. 1954, dated the 6th instant, with enclosures, containing a report in regard to the Police arrangements at Hurdwar during the fair lately held there.

2. In reply, I am desired to state that the issue of orders thereon is deferred, until the general report of the Magistrate and Civil Surgeon has been received.

3. Meanwhile, I am to convey to you the sanction of the Lieutenant Governor to the grant of a reward of one month's pay to all the Police of these Provinces and the Punjab employed at the fair, from the Inspectors downwards, and I am to request that you will prepare bills for the expenditure that will thus be incurred, and submit them to Government through the Officiating Accountant-General, who will report from what source the charge can be met.

4. His Honor considers that, under the circumstances stated by Major Watson, the Chow-keedars who were collected to supplement the Constabulary should receive a reward of Rupees six each, and the submission of a bill for rewards to them at that rate through the Officiating Accountant-General is also requested.

ORDER.—Ordered that the foregoing correspondence be forwarded to General Department, for information and record.

F. HENVEY,
Offg. Under Secy. to Govt., N.W.P.

From A. H. HARINGTON, Esq., Officiating Under Secretary to the Government of India, Home Department, to the Secretary to Government, North-Western Provinces, dated Simla, 15th May 1867, No. 253.

I am directed to request that, with the permission of His Honor the Lieutenant Governor, a report may be submitted for the information of His Excellency the Governor General in Council on the arrangements which were made for maintaining order and security at the late Hurdwar Fair, for life and property, and on all points connected with the recent outbreak of cholera among the pilgrims to Hurdwar, whether at the fair or on their way to or from it.

From R. SIMSON, Esq., Secretary to Government, North-Western Provinces, to the Secretary to the Government of India, Home Department, dated Nynee Tal, 4th June 1867, No. 1843-A.

In reply to your office letter, No. 253, dated the 15th ultimo, I am directed to state, for the information of His Excellency the Viceroy and Governor General in Council, that reports have already been called for in regard to the arrangements made for the maintenance of order and security at the late Hurdwar Fair, and with reference to the outbreak of cholera among the pilgrims, and are expected immediately. As soon as they are received, a report will be submitted to the Government of India.

From F. WILLIAMS, Esq., Commissioner of Meerut, to the Secretary to Government, North-Western Provinces, dated Meerut, 26th June 1867, Docket No. 171.

Forwards a report on the Hurdwar Fair of April 1867, with enclosures, as noted within, for information.

REPORT ON THE HURDWAR FAIR, 1867.

This is the first really large fair, with the exception of that in 1865, which took all by surprise, which has occurred since I have been in charge of the division.

2. The Cholera Conference at Constantinople had called attention to the fact which had been gradually developed at fairs on the Ganges lately, that cholera was generated on these occasions.

3. The accident in 1865, which happily was not, but which might, but for the presence of mind and energy of the European officers, have been most deplorable, indicated the necessity of making most careful provision for the safety of the people in the great fair of 1867.

4. I determined that arrangements should be made to guard, as far as in me lay, against accidents, and as far as conservancy and sanitary measures could avail, against cholera; and to this my attention was directed, and for this end discretionary power was given by His Honor the Lieutenant Governor.

5. The difficulty in arranging for such a multitude bathing at what is called the sacred place has very considerably increased since the opening of the Ganges Canal. The whole volume of the Ganges has been turned into the branch of the river which runs under Hurdwar. What was formerly a shallow stream has become a deep rapid torrent. Formerly the people could spread out into the water to bathe, though not without danger from the uncontrolled rush of a pressing multitude trampling down all before them, still with comparative safety. The Canal, or rather the Ganges, as has been said, now rushes where there used to be shallow water. Bathing has been confined to a narrow strip along the bottom of the steps. The torrent would sweep away any one attempting to advance into it. Round the flanks of the bathing-place was deep strong water. Therefore those who had bathed had to force their way back up the steps through the descending crowds, and through the masses, closely packed in narrow streets, which were, on great occasions like 1865, converted into quagmires by the water dropping off the bodies and scanty clothes of returning bathers. On every line of approach to the bathing-place the people crowding on to bathe were met by the returning stream of those who had bathed.

6. I had, after the fair in 1865, pointed out the necessity of arranging for the bathers to pass on from the steps, to avoid collision, by an esplanade from each side of the bathing-place. This suggestion was improved into a determination that, after bathing, every one should be passed over into the island opposite the bathing-place, called Roree, or Mughara, and thence returned by prescribed routes.

7. At a meeting on 9th of January 1867, of the officers noted in the margin, this was unanimously agreed to. The Canal officers kindly undertook to make the esplanades, bridges of boats, and all requisite works.

Colonel Dyas, Superintendent-General of Irrigation.
Major Brownlow, Deputy Superintendent.
Captain Forbes, Executive Engineer, Northern Division,
Ganges Canal.

Mr. Robertson, Magistrate.
Major Watson, Superintendent of Police, and myself.

8. Eventually the arrangement was that shown in Map No. A. Bridges Nos. I and II drew the bathers from the north end of the islands, and these, and all bathers from the Dehra section, approached the sacred bathing-place by the Hurdwar and Dehra road, were stopped by a barricade, and passed down a side road to the north esplanade, being thus prevented from clashing with the crowd approaching by the Jowalapore road. A portion of the bathing-place was barricaded off, so that these bathers should not mingle with the main stream. Having bathed, these people returned by Bridge No. III and Bridges Nos. II. and I. to their tents.

9. The main stream came up from Kunkhul and the southern part of the Bijnour side by the Regulator bridge, and from Jowalapore section by the Jowalapore road, and those from the southern part of the island and the Bijnour side (northern part) crossing by Nos. IX. and X. bridges to the Lulta Rao, and thence by the Jowalapore road, bathed and crossed to the east by Bridges No. IV., V., and VI., and dispersed on the island, or crossed to Bijnour side, or re-crossed by Nos. IX. and X. to Jowalapore and Kunkhul.

10. Thus all chance of collision was avoided, for the crossing of the Jowalapore and Lulta Rao roads is 200 feet broad, and on the only narrow part of the Jowalapore road a double road had been opened.

11. But there was another difficulty to be provided for.

12. Six bands of fakeers, some of them mustering above 10,000 men, claimed the right to come each with a procession of elephants &c. (one of the bands having 15 elephants) from the south end of the town of Kunkhul up through the town of Hurdwar to the bathing-place, and at first insisted on the exercise of this right. Moreover, the spirit of rivalry between these bands was so great that if two came together each was bound to hold its ground. In former days, this rivalry had led to bloody fights.

13. If this wish or claim had been acceded to, one of three courses must have been pursued.

14. One was that the procession of elephants must have been allowed to go down the bathing steps and cross the rapid torrent of the canal; in this there was the great danger of a weak elephant, or indeed any elephant, slipping in the rapid, and being carried down by the surging strong stream against the bridges. The result of this would have been the destruction of every bridge, the annihilation of the system, and the isolation of the people on the island, and a forced return to the collision system under most disadvantageous circumstances.

15. Another was to make an exception in favor of the fakeers, and to allow them to return the way they came, against the stream, with elephants, &c.

16. The third, which I was entreated to adopt, was to allow the processions to come up by the Jowalapore road, and return by the Hurdwar bazaar, which was to be kept clear for this especial purpose.

17. I determined to reject all—happily, I believe, for, to say nothing of the danger to the bridges if the elephants crossed, the imminent danger to the crowd if the processions came up by the Jowalapore road and returned the same ways taking into consideration merely the third proposition, there were the following most serious objections:—

18. *First*, the admission of elephants at all and of these gangs of fakeers amidst such a crowd was full of danger; and, *secondly*, the greater part of the crowd would have been altogether debarred from bathing on the great day, as the processions had to be started with a considerable interval of time between each. Even coming as they eventually did by the wide roads on the islands, they took the whole day. If to the mere slow progress of the processions had been added the detention of the elephants at the head of the bathing-steps, where the streets are not 20 feet broad seeing that these fakeers would not be hurried, as is shown in Mr. Daniell's report, the validity of my second objection is beyond dispute.

19. I therefore ruled that these processions should cross to the island below the Myapore weir, where the water was not ankle-deep for the elephants, and there was a bridge for the men, come up the Kunkhul-Dehra road, which was 100 feet broad, to nearly opposite the bathing-place, where a roadway of 200 feet had been reserved. The elephants were stopped there.

On their appearance there by flag signals the barricades on the Dehra section road were closed; when the men on foot appeared opposite the bathing-places, the Dehra section of the bathing-place was cleared, those who had been allowed to go on bathing being passed over No. III. bridge, leaving that bridge and the esplanade clear. The fakeers then passed from east to west over No. III. bridge to the north esplanade up the side road to the Dehra road, and by the small piece of the Hurdwar-Dehra road barred against the Dehra section, reached the head of the bathing-steps, bathed, returned by bridges Nos. IV., V., and VI., rejoined their elephants, and returned to Kunkhul by the Canal road.

On the arrival of the fakeers on the north esplanade, the barrier of the main stream of bathers was closed; the few on the steps had time to bathe and get away by the south esplanade by bridges IV., V., and VI., while the fakeers were going up to the Dehra road and getting down to the bathing-steps.

20. I had an opportunity of watching the working of this arrangement on the 4th of April. On the first trial, the barriers were closed too soon; on the second trial, the Doon section was not stopped for more than a quarter of an hour, the main stream for not more than five minutes, exclusive of the time taken by the 1,000 fakeers to bathe.

21. Mr. Daniell notes that, on the great bathing day, the great body of fakeers, the Nagahs, detained the Dehra section three-quarters of an hour.

If they had been allowed to take the procession by the main west approach to the bathing-steps, they would certainly have detained the main stream of bathers nearer three hours.

22. The programme of my arrangement was not carried out without difficulty. On their claim to take the procession through Hurdwar being rejected, the fakeers declared they would leave the fair *en masse*, and return to their homes *re infecta*. But when they found I was prepared to face even this contingency, they listened to reason. The Magistrate, Mr. Robertson, who agreed in the propriety of my arrangements, after this threatened explosion was got over, with admirable tact got the heads of all the bands to sign agreements to adopt the programme; and I had the gratification, on the 4th, of hearing band after band express in loud shouts their satisfaction with the arrangement.

23. How many people bathed, whether the number was one million or two millions, will never be known; but assuming, which may be safely done, the lowest figure, and bearing in mind that the greater part of this enormous mass had to bathe at one spot, not, with both esplanades and all the improvements, 100 yards wide, one approach to which was about 20 feet wide, and the other not so much, I hope it will be allowed that there is great cause for thankfulness that there was only one accident.

24. I believe I am justified in contending that this accident had no connection whatever with my arrangements.

25. It is absolutely necessary in such enormous crowds to have barriers to check the pressure and control the advance of the mass, and thus break them up into smaller and more manageable sections. This has been the custom certainly since 1857, introduced, I believe, by Major Tyrwhitt. This system of barriers was not confined to the Dehra section, but was in general use.

26. The accident is thus described by Mr. Daniell:—A thatch roof over a shop near Barricade No. 2 gave way, the people under and about the roof were thrown out on to the crowd, and a sudden heavy pressure was put on Barricade No. 2, and the structure gave way. In the fall of the roof one old man was severely injured, and died some three hours after; in the fall of the barricade one woman, who had got under the railing, was crushed to death at once; and one man, who I believe was her companion, was so injured that he died shortly after. Some five others were injured, but were soon looked to by Doctor Richardson, and their injuries dressed. Fortunately Doctor Richardson was at the spot where the roof fell, and he at once proceeded to pick up the fallen mass of human beings, and, aided by Mr. Colvin, who was also in the crowd, to restore animation to several persons who were almost inanimate.

27. Mr. Daniell rightly says, the presence of Doctor Richardson at that moment was of the greatest value, and his professional experience of the greatest aid. Of course, it was not due to any arrangement, but to a merciful Providence, that Doctor Richardson happened to be at that exact spot, but it was only owing to special arrangements that he was not at Dehra, 30 miles off.

28. The giving way of a roof was a contingency which, in an area of about 9 miles long, and from two to six miles broad, crowded with permanent and temporary erections, happening in a part which was packed so densely by a great crowd that the Police could hardly move among the people, could scarcely be guarded against.

29. Two persons were killed by lightning in the storm of the night of the 11th.

30. Further on in this report, a description of the general arrangements, Dr. Cutcliffe's report, and those of the other officers, will show, I think, that, had there been other accidents, they would have been brought to notice.

31. I can only say that I am very thankful that in an encampment, probably nearly equalling in numbers the population of London, there was such a marvellous immunity from catastrophes in a crowd converging in a surging mass with one object to one small spot.

32. Partly connected with arrangements for facilitating approach to the bathing-place and partly with the sanitary arrangements, comes, as a connecting link between the two, what was also the basis of Police administration, of method and order among the crowd, of safety and comfort to the individual atoms of this great mass—the arrangements of the ground for their reception.

33. Heretofore the people poured into the place, spread over the available ground, and took possession of any spot that suited them, without any method or order, so closely packed, and in such confusion, that individuals, once separated from their friends, had to wander about, searching for, but unable in the dense crowd to find them. Women and children were frequently lost in the mass, and were with difficulty, if at all, restored to their families after the fair broke up. Efficient Police arrangements were impracticable, supervision or visitation simply impossible; ventilation there was none, nor the slightest approach to conservancy. It is impossible, in an official paper, to attempt to describe the offensiveness of every part of the fair and the neighbourhood under the old style.

34. The state of this fair was totally different.

35. The first part of the instructions (Appendix No. B.) issued for the guidance of my enablers, Dr. Cutcliffe's report, and the map which accompanies that report, show in such detail the arrangements that were made, that it is unnecessary to repeat them. To ensure that they should be perfectly understood, I laid out all the roads and blocks on the Roree Island myself, fixed the positions of Police posts, &c., there, pointed out to the managers of Hurdwar and Myapore how their ground should be laid out, in company with Dr. Cutcliffe, selected the sites for the dispensary and hospitals, so that on arrival of the Dehra Doon and Bijnour authorities, they could at once see how to lay out their ground; and thus in good time for the first arrivals *en masse* a large area was ready for them, divided by roads of varying width, from main roads of 100 feet to paths of 10 feet, with Police stations and outposts distinguished by flags representing by the number of colors on them, the numerals, so that a very ordinary Native soon learnt to understand and recognize from a distance the number of the division, and then easily find the sub-division in which he had set up his tent.

36. There was a little difficulty at first in preventing new comers from squatting on the roads.

But when the lines became more clearly marked by shops or more of tents, the people fell into and evidently appreciated the arrangement.

37. The regular streets of this great encampment, laid out like a well-planned town—the rows of shops bright with piles of merchandize by day, or lit up with lamps at night—had really a very good effect.

38. Formerly, the horse fair was on the Lulta Rao (shown in the maps), in a dry torrent bed, in the heart of the fair close to the town of Hurdwar. Here the horses were most irregularly tethered on sand and boulders, and were constantly breaking loose and rushing among the crowd.

39. This year regular lines, as far as Cavalry regiment were laid down on good soil, at the south end of the Roree Island, not interfering with the crowd, but still quite central enough for those who were purchasers.

40. Dr. Cutcliffe has shown so clearly the sanitary and conservancy arrangements that were made, that I need not repeat them.

I can testify to the efficiency of them. I visited every part of the encampment, went all round and through Kunkhul and Hurdwar, went far up ravines in the Sewalic range, the very entrances of which, when sanitary operations were commenced, were unapproachable. From one end of the place to the other the cleanliness was marvellous, and the testimony of all, Europeans and Natives, proves that this was maintained to the last.

41. The different blocks or sub-divisions of this great congregation were in such control that even a census could be taken. Generally people from one place or one part of the country encamped together, and a block was often a little transported village; every part was under the eye of the Police, and so effectually, that the absence of crime was remarkable. Four European doctors, with a strong Native staff, visited in search for sickness or breaches of sanitary rules every part; Magistrates, Assistant Magistrates, Superintendents of Police, and Inspectors, patrolled constantly in every direction; no disease was allowed to remain untreated; every case was attended to on the spot or taken to hospital; there was a very centrally situated dispensary at hand for the relief of any ailment.

42. I quote from Dr. Cutcliffe's report—"The whole encampment was remarkably free from sickness." It was a palpable fact, observed by all who were much in the crowd, that the pilgrims looked remarkably healthy, cheerful, and happy and that, whenever they saw a European, they never ceased vociferating their grateful praises of the Government that had been so kindly thoughtful in providing for their safety and comfort.

43. Yet, despite the most earnest forethought, the most zealous care of as fine a set of officers as ever worked from daybreak to dark for the people's good, cholera appeared.

44. This was on the thirteenth after the great bathing day, when the dispersion had commenced. The subject will be taken up separately. I earnestly hope that the failure of all their efforts to avert this one dreaded evil will not affect the strong claim of all engaged to high approbation, which eminent success in every other respect, I trust, entitles them to.

45. I cannot thank too warmly the officers of the Canal Department. From the moment that the preparation of esplanades and bridges was agreed upon to the great bathing day, their co-operation was most cordial.

46. Captain Forbes, who commenced the works, being deputed on other duty, the completion fell to the charge of Lieutenant Marinden, R.E.

47. Fortunately full time was allowed, for the work was heavy. Boats had to be collected from the entire length of the canal for ten bridges, with a margin to spare; chains, hawsers, roadway railings, to be procured; the bridges had to be put together in very swift stream and made safe for the passage of as many people as could crowd upon them, and most scientifically was this done. They were subjected to the severest test in anticipation, and stood that and the passage of millions perfectly.

48. This and the preparation of crates and railings for the esplanades, and defences in front of the bathing-places, and the collection and placing in possession of the mass of boulders required for these works, and the shallowing of the long frontage, threw very heavy extra work on Lieutenant Marinden, his Supervisor, Serjeant Brieve, who worked indefatigably, and all the establishment; and if rewards are sanctioned, as I hope they will be, I beg that the Executive Engineer, Northern Division, Ganges Canal, may be allowed to submit a list of those for whom he would recommend rewards should be granted.

49. Though the main outlines of the rest of the programme were laid down in January, little progress was made till the beginning of March, owing to want of money, principally in consequence of a doubt from what funds it should be supplied, of which difficulty, no reference having been made, I was unfortunately ignorant. But the source of supply was indicated, and on my arrival on the ground full instructions, in framing of which the Magistrate, the Superintendent of Police, and Civil Surgeon assisted and concurred, were issued, and from that time the work was pushed on with marvellous energy.

50. This work also was very heavy; miles of roads had to be lined out, jungle and scrub to be cut and rooted up, hundreds of acres of ground to be cleared, the town and environs of Hurdwar, Kunkhul, and Jowlapore had to be cleaned; accommodation had to be provided for the Police; hospitals had to be erected, and the furniture and medicine to be collected—besides much other work.

51. On the Magistrate, Mr. Robertson, devolved the duty of supplying men and materials for all this, and hard task it was to meet the constant calls Dr. Cutcliffe and Major Watson and the other officers. Mr. Robertson had also, as noticed above, to carry out the arrangements regarding the processions with the head fakeers, to arrange for the accommodation of all the Native chiefs, and to manage all the minor matters connected with the advent of such a vast concourse.

52. It was no small praise to say simply that all was done.

53. The Assistant, Mr. Williams, helped the Magistrate and every one with indefatigable energy; Mr. Donovan on his return from leave did good service, taking Lieutenant Jones's place at Jowalapore, and otherwise, as will be shown in the concluding part of this report.

54. It is difficult to say which was greatest, Dr. Cutcliffe's astonishment at the marvellous rapidity and efficiency with which all his requisitions were carried out by Major Watson and the Police, or Major Watson's admiration of Dr. Cutcliffe's energetic and intelligent superintendence of the sanitary arrangements.

55. All admired the celerity with which Lieutenant Jones, of the Punjab Police, got the work executed in the Jowalapore section, and the perfect way in which it was done.

56. Mr. Pocock, Inspector of Police in charge of Kunkhul, and Mr. Foster, in the same capacity in Hurdwar, elicited the highest praise from Dr. Cutcliffe; the cleaning of these two places in the time and to the extent to which it was done was most creditable work.

57. A little later Captain Bramley arrived, and, with Mr. Williams, with untiring attention finished the work on the island. Mr. Ward, the Assistant to the Superintendent, came from Dehra, and, working well and hard, arranged all the ground on that side; Mr. Daniell having a large fair at Dehra to look after.

58. Mr. Palmer, the Magistrate of Bijnour, adopted all the arrangements, and had them carried into full effect on that side, aided by Major Mowbray Thomson, Superintendent of Police.

59. In their own departments—the preparation of hospitals in the Dehra and Bijnour side and supervision of medical and sanitary measures—Drs. Richardson and Gardner gave most valuable assistance.

Doctor Kindall, in medical charge of the detachment of Jat horse, kindly undertook to look after the neighbourhood of his encampment, and for his zealous assistance hearty thanks are due.

60. As Sanitary and Medical Officer, Dr. Cutcliffe superintended all, assisted all. I shall show further on my appreciation of his valuable services.

61. Mr. Jones, Assistant Engineer, most kindly undertook the superintendence of the construction of the kilns, and to him it is due that they were ready in time, and answered the purpose admirably; he most readily assisted in every way in his power.

62. As mentioned above, Mr. Daniell, having to look after the Dehra fair, could not come to Hurdwar till the 1st of April; but from that date he took charge of, and managed admirably, the Dehra section, and having gained experience in 1865 was a most valuable coadjutor.

63. It may appear that praise is lavished with most liberal profusion, but having almost shared in the dismay with which the mass of work to be done was viewed in the middle of March; having shared in the works and realized what it was to work from morning till night in such a crowd and under such a sun; and seeing how, with one single exception, which was beyond the power of man, the success was perfect, I cannot too strongly praise those to whom this success is due.

64. I certainly cannot praise too highly Major Waton, the Superintendent, and Inspectors and Police subordinate officers whom Major Watson has named, and the whole force.

65. Major Watson has now for the second time had Police management of an innumerable concourse of people. All his arrangements have been most admirable and most successful. On this occasion he had a large force to command, though that force contrasted with the multitude to be controlled, was small enough. The force consisted of officers and men detached from other districts and divisions, including some from another province; he managed all with admirable tract. The best proof of the excellence of his arrangements is the complete success, the wonderful immunity from crime and accident of this vast crowd. Major Waton deserves, and will, I hope, receive from Government, some substantial reward. The most acceptable I believe, unfortunately for the Police Department, would be, owing to the small and distant prospect of advancement in the Police line, an appointment from His Excellency the Commander-in-Chief, for which I hope Major Watson can be strongly recommended.

66. I have already referred to the exertions of Captain Bramley, Lieutenant Jones, Mr. Pocock, Mr. Foster, and Mr. Pocock, junior. I most heartily join in Major Watson's commendations. Dr. Cutcliffe also mentions the indefatigable zeal of Mr. Gardner, Inspector of Police.

67. Lieutenant Jones not only made all the preliminary arrangements at Jowalapore, and subsequently on the great bathing day kept order at the bridges leading to and from the Roree Island, i.e., the passage points of the multitude of bathers—he had to control a strong party-spirit in Jowalapore, where a feud between Hindoos and Mahomedans, though suppressed, had not quite been extinguished by the previous management of Mr. Robertson. Lieutenant Jones and his Police did it admirably. His Honor the Lieutenant Governor of the Punjab will I hope learn, and with satisfaction, that every officer of the North-West at this fair praises the excellent behaviour of, and valuable assistance rendered by this detachment from the Punjab.

I hope that the special mention by Major Watson of the Inspectors Mooktear Singh, Abdool, Razak, Ameer Singh, and Soochee Willayat Khan, will be noticed. That Lieutenant Jones has won the admiration of all as a very smart and efficient officer will be apparent from all the reports.

68. I gladly draw attention to Major Watson's praise of the Inspectors and Sub-Inspectors named by him and detailed in the margin. This is the second great fair at which Liakut Hossein has rendered right good service. To these might be added Aga Jan, whom Mr. Daniell commends, Sub-Inspector Bohrar Ally, and Head Constables Muttra Singh and Zubber Singh.

69. I strongly second Major Watson's recommendation, that the village watchmen, who have been drawn from their homes and kept away for more than a month, should have their pay doubled for the time they were so employed, and that double pay should be granted to the whole Police force, from Inspectors, and including them, downwards, including the Punjab detachment.

70. From first to last, the whole force behaved admirably. Their first duty was a most unpalatable one—the superintendence of the cleaning of places compared with which the Auger stables were pure—a duty which, but for the intelligent application of the dry-earth system by Dr. Cutcliffe, the officers and men simply could not have performed, though, much to their praise, they made no objection. In their last, the care of the bathers on the great bathing day—they showed a feeling and a spirit certainly seldom exhibited by Natives of Hindoostan, and which savours more of that chivalrous gentleness of the west which they must have imbibed from the training and example of their European Officers. As Major Watson writes—"Their kindness to helpless and aged people, their tenderness to children and sympathy with distress, took many by surprise."

Mr. Robertson also notices that, "during the great bathing days, a large number of Police, including some Inspectors, remained in the water throughout the day to prevent accidents, and the gentleness with which they treated the people, frequently intractable from stupidity, was beyond all praise."

Every one present must have observed Policemen helping women and children with a respectful gentleness which has doubtless left a very good impression on the minds of hundreds of thousands.

71. I earnestly hope that the recommendation in favor of the Police will be accepted; the means of doing so will be noticed further on.

72. The detachment of Jat horse under Captain Ross were only employed on the great bathing day, and then as a precaution; but their presence was very useful. The conduct of the detachment throughout was excellent, and Captain Ross most readily gave all the assistance required. I have mentioned Doctor Kendall's professional aid in another part of this report.

73. As in 1865, I attributed much of the success of the management of the multitude to the tractability generally of the people themselves, so do I now.

74. I would particularly draw attention to Mr. Daniell's remarks on the good example set by the Native Chiefs generally, and especially by Rajah Shumsheer Prakash of Sirmoor, who, as Mr. Daniell writes, "hearing it was my wish that every one should pass up the same road, and that no one should return except by the proper route, at once determined to follow the crowd, and went on foot from his tents at Khurkhuree to the ghat, and bathing passed over to Roree, where he had his horses in waiting." I trust the Rajah's good spirit may be especially praised by Government.

75. And I wish it were possible to thank all the others; but as Mr. Daniell says, there was not a single person among the Chiefs and gentlemen who encamped on the Doon side who did not follow the regular stream without the slightest demur, and as a larger number must have acted in the same considerate manner in the other sections, it is impossible to name all.

76. In concluding this portion of the narrative, I would draw attention to the gratitude evinced by the people noticed in the reports; the arrangements provided for their safety and comfort evidently made a deep impression on the pilgrims. All along the roads, for from Hurdwar, the sight of a European called forth blessings on the British rulers.

77. I humbly trust that the credit of Government, and that of the North-West particularly, was fully maintained, and considerably enhanced by the exertions made by all concerned in the management of this fair.

78. I approach the financial part of the narrative, with the hope that the propriety, of incurring considerable expense to secure the safety, comfort, and approbation of this vast horde of visitors from all parts of India, and, though we failed in preventing an outbreak of cholera, in taking every precaution against it which could be thought of, will be admitted.

79. Without the expenditure on the boat-bridges, extension of the bathing-place, and such works, not only would such success as can be, and is reported have been impossible, inevitably the record of calamities must have been great.

80. The cost of bridges, &c., amounting to Rs. 22,500, is entirely due to the introduction of the Canal water into the Hurdwar branch of the Ganges, and should, I opine, be charged against the Canal, from which department the funds were supplied.

81. The necessity for filling up holes in front of the bathing-places on both sides, or rather shallowing the water, is owing to the same cause principally; but, nevertheless, as the bed of the branch could never have been regular enough not to require improvement on such an occasion, this branch could never have been regular enough not to require improvement on such an occasion, this cost, Rs. 3,098, and that of the extension of the bathing-places, Rs. 2,232, total Rs. 5,330, should not be debited to the Canal, but met from other funds, as must be the whole charge, paid for the present from Local Funds, and amounting to Rs. 14,689-2-10 more, cost of conservancy, and sanitary and medical arrangements. This, it must be remembered, includes the expenditure on the Dehra and Bijnour sides, as, with my consent, none other being available, funds for works in those sections also were provided by the Collector of Seharunpore.

82. The total expenditure to be adjusted, exclusive of that proper to the Canal, is Rs. 5,330 + 14,689-2-10 = 20,019-2-10.

83. The only set-off against this is the sum of Rs. 9,672-9-6, receipts on account of rent of Government land in road frontages, &c., after deducting cost of expenditure. A balance, therefore, of Rs. 10,346-9-4, remains to be repaid to the Seharunpore Local Funds; for I cannot imagine that it can be ruled that this expenditure for the good of people from all parts of India, and for thousands upon thousands from adjoining divisions and districts, should be taken from this one local Committee.

84. I was obliged to take upon myself the responsibility of directing the transfer of unexpended assignments in the Local Budget of Seharunpore for expenditure in the fair. Having to work myself from morning till night in laying out the ground, &c., I had not time to write.

As owing to the appropriation of these Local Funds most important works, which should be ready before the opening of the railway, were delayed, I have sanctioned the Rs. 9,672-9-6 being applied to adjust the deficit in the Local Budget.

85. I hope the remaining Rs. 10,346-9-4 can be, and will willingly be, contributed by the other districts of the Meerut Division, and those of the Rohikund and Agra Divisions, from Municipal and such funds. I have feared to propose that the Umballa and Delhi Divisions should contribute, though the justice of their doing so would, I think, be allowed, because a reference to another Government may complicate an adjustment.

86. If the three divisions of the North-West only contribute equally, without nice calculations of respective populations and incomes, excluding Dehra Doon and the Turrail in Bareilly, which have no funds, there would be 16 districts to join. Taking the sum to be raised as Rs. 10,000 in round figures, leaving Seharunpore to bear the fractions, each district would have to provide Rs. 625, which is not a large sum to be divided among many towns.

87. I hope this proposal for adjustment will meet with the approval of Government and concurrence of Local Committees. Just as local funds were freely contributed for the Agra Exhibition from many districts, now the other districts might contribute for this purpose.

88. There will still remain a large sum to be provided for on account of rewards to the Police, double pay to village watchmen, and the differences between recess and full pay for the Medical staff. Part of this will doubtless come from the General Police Fund.

89. Mr. Robertson has indicated a source from which pay for the watchmen may be for the present provided, *viz.*, about Rs. 12,000, surplus of the house assessment fund for village watchmen in the Seharunpore district. As this assessment comes into operation in other districts from which the watchmen were drawn, these districts might replace their quota.

90. The Magistrate has been called upon to draw up a correct account of all such liabilities, which will be submitted. He has not as yet been able to supply it, and I can no longer delay this report.

91. I do not intend to attempt to account for the outbreak of cholera.

92. Whether the poison was this year generated in the fair, or brought from parts of the country where it had been prevailing, either in an epidemic or sporadic form, I think is a question which it is beyond our present power to solve.

93. The disease had been breaking out in one form or another in many places ever since, if not before, the fair, in the Ganges at Gurhmooktesur, in the Meerut District, which occurred between the 16th and 23rd of November 1866. It was in Agra during the Great Durbār. It had been in Rajpootana before that. It had been hanging along the foot of the Himalayan hills in Rohilkund. That it had been prevalent in the Punjab, is evident from the return in the Supplement to the *Punjab Gazette* of the 9th May 1867, which shows 81 cases of death from cholera in March 1867.

94. The germs of the disease might easily have been floating up with every camp of pilgrims from every part of the country, but then it would be a mystery why it should not have appeared on the line of march to the fair, which it certainly did not, at least in this division; why it should have lain dormant so long in the fair, without breaking out. There was only one single sporadic case in the neighbourhood of the fair, that is, in the Jat horse encampment, which was entirely separated from the crowd.

95. That there was any predisposing cause in this fair, more than in any other great or small fair, cannot, I think, be admitted.

96. As Mr. Robertson says—"The sanitary arrangements seemed at the time to be perfect, while at former Coombs (*i.e.*, great fairs) by the accounts both of Europeans and Natives, "it had hardly been possible to move in any direction in consequence of the filth;" and again, "the filth was doubtless in the centre of the people at all the previous Coomb fairs."

Mr. Robertson certainly suggests that the filth formerly was left exposed to the dry heat of an April sun, and all injurious characteristics may have been thereby removed; but had this been the case, the matter would have ceased to be offensive, which it never did, and, moreover, it was constantly renewed.

97. We have been furnished with olfactory nerves to enable us, I believe, to avoid what is injurious, such matter having been made offensive.

All previous fairs were unbearably offensive, with one exception. It is universally acknowledged that throughout the length and breadth of this fair, to the very last, not an approach to an offensive smell was to be perceived. There is no mention anywhere of any difference in this respect after the rain.

98. The exception was confined to one locality between the Seharunpore and Bijnour side, till fuel was procured for the kilns.

But I have heard from Mr. Williams, who, with Mr. Donovan, after the appearance of cholera authorized such intrusion, made a house to house visitation in Kunkhul, that some of the houses were dreadfully offensive.

99. Still if there was one small locality offensive, and even supposing all the houses in Kunkhul and Hurdwar were, which would be assuming a great deal too much, for as far as possible Mr. Cutcliffe enforced cleanliness everywhere, this must have been the case in former fairs; and what could be the effect of evil in one small locality, compared with the reeking fumes from the entire area.

100. The conclusion of the Native physicians which Mr. Robertson mentions, that the smoke from the furnaces caused the cholera, can hardly be accepted; the mouths of the kilns were well above the crowd, and the smoke, even if it could be injurious, which is very doubtful, rose far away above the crowd, and the furnaces were to leeward of the great mass of the people.

101. That filth exposed on the surface in all directions can be less injurious than stuff immediately consigned to the earth and covered and rammed down, or immediately removed and burnt, will hardly gain credence. Had any such nuisance really risen from the trenches as the Natives asserted to Mr. Robertson it did, it is wonderful that not a single Anglo-Saxon, a race far more sensitive of foul smells than Natives, perceived it. I think this hypothesis is due to the Native antipathy to conservancy.

102. Mr. Robertson has raised objections to the measures adopted, and suggested that some other arrangements should be made in future.

Not a suggestion should be despised, and I hope, before any other fair comes off, we may have a department to make better arrangements.

103. In this place, I would only indicate the difficulty there was in the way of making better or other arrangements for this fair, as Mr. Robertson well knows the establishment for conservancy purposes that was employed was collected with the greatest difficulty. It would have been simply impossible to have arranged for the removal of above 446 tons of dry matter daily, which, at a moderate computation, would be the amount due to a population of two millions, which may be fairly taken as the number at this fair.

104. I hope that it will be admitted that the best arrangements possible under the circumstances were made, and that they were most admirably carried out.

105. The effect on the Natives generally has been so great as to predispose them to receive favorably—and this is a favorable time therefore for making—arrangements, for not only fuller sanitary measures at future fairs, but for the spread of sanitation through the towns and villages.

106. Although the Brahmins have a prediction, dating about the time when they become convinced the Ganges would succumb to the intellect of Engineers, that there will be no more great Coomb or great fair—that the sanctity of the Ganges and Hurdwar will cease, or cease to be recognized—there will be gatherings of considerable magnitude before the prediction is verified fully, as it may be hoped it will be by the expanded intellects of the people refusing to accede to a simple but magnificent line of drainage such reverence as they have hitherto paid.

107. Although we have failed to avert cholera, I cannot but think that there is sufficient encouragement on its very late appearance at this fair, its amenability to treatment generally, and the success which has generally attended the endeavours made to prevent its spreading, to warrant a persistence in the adoption of precautions at all Hurdwar fairs, and at all fairs in future, and more than encouragement to hope that more perfect and slightly modified arrangements may succeed in preventing any outbreak. The arrangements this time were necessarily limited by want of funds and want of time, owing to the want of a specially organized establishment for such works, and suggestions have been, and may be made, which should not be overlooked.

108. And though heartily acknowledging the good work that has been done by the Sanitary Committee, and therefore not intending to disparage their labors in the slightest degree, I think (and I trust this would be admitted by the Commission) that the appointment of a local Sanitary Officer, with an efficient establishment, who could not only make arrangements for all future fairs, but in the intervals travel through the country, and aid the Municipal corporations in their endeavour to introduce sanitation in the towns, and obtain an influence in the villages among the people, and induce them to accept simple, but efficient sanitary arrangements, is most desirable.

109. Not only is the time favorable for the reasons given above, the locality, the Meerut division, is favorable. Through the length and breadth of it the pilgrims crowd to the great fairs at Hurdwar, and there is another fair at Gurhmookhtesur, whence cholera has spread. It will shortly be the main line to the Punjab. Besides the Cantonments of Meerut and Roorkee, there are the sanitarium of Mussoorie and Landour. Shortly there will be another on the Pokree range. The Cantonment and large town of Delhi would be defended from the visitations which have their source here. The movements of the sanitary officers will be much facilitated by the railway, which will shortly be open through the length of the division, and finally, especially is this division a most favorable one for the experiment, because here at least the requisite funds are forthcoming.

110. Act II. of 1865-66 have been, or shortly will be, introduced in all the districts. After providing for an efficient village constabulary, there will be a surplus. I cannot think there could be any more legitimate way of expending a portion of this surplus, than in a sound endeavour to save the people from the fatal effects not only of these fairs, but also of their own universal neglect of sanitation.

111. I firmly believe that, with a special officer to superintend the preliminary arrangements for these fairs, the separate encamping ground on lines of roads particularly selected for the coming and going of the pilgrims, distinct from the great thoroughfares, provision of the best description for sanitation and conservancy at these encamping grounds and at the fairs, these constantly recurring outbreaks of cholera might be prevented; and that such an officer, carrying into effect the suggestions of the Sanitary Commission, would soon be able to show a marked difference

in the towns and villages in the tract entrusted to him, and that the mortuary returns, the preparation and correction of which he should superintend, would soon show a greatly reduced rate of mortality.

112. At any rate, I think it must be allowed that the attempt should be made, and in this division, for the reasons given above.

My proposal is more fully developed in a separate paper.

113. All that remains in connection with this great fair would be to trace the spread of cholera, and to detail the measures that were taken to prevent the disease spreading.

Immediately on receipt of the news of the outbreak, Captain Orman, Cantonment Magistrate, passed on clear of this Roorkee Cantonment the large concourse halting near the place, among whom four deaths had occurred, and made arrangements for diverting the westward-bound streams of pilgrims by the Pran Kulleer and Bhugwanpore road, north of Roorkee, and those going south by an eastern road. The Cantonment was thus saved, though some few cases occurred in the station.

114. The Joint Magistrate of Seharunpore diverted the stream from that town.

115. It was impossible to divert the stream from Mozuffernuggur, owing to the locality being between two rivers, and there being no parallel roads, but the emergency was fully met by the Magistrate and Civil Surgeon, and medical aid was afforded to all that could be discovered requiring it.

116. Most efficient arrangements were made for the safety of the Meerut Cantonment. All pilgrims bound for the west and south-west were turned down the Canal bank at Khutowlee, 20 miles north of Meerut, and they thus passed nine miles away from the station. This stream again was directed to cross the Jumna at Bhagput, a considerable distance above Delhi, on which line the boat-bridges were thrown open to them free of toll. They were strictly prohibited from going direct to Delhi, and were told they would not be allowed to cross into the city.

Between three and four miles north of Meerut, another arrangement was made for keeping the pilgrims out of the Cantonments. A double Police post and a hospital were located on the road; all the sick were picked out and treated in the hospital; and those not sick, were turned by a bye-road, and passed down well out of the bounds of Cantonments. Another hospital was provided south of the Cantonments. Preparations were made at the Ghazeeabad Railway station, where also a hospital was established.

117. Throughout the division, the Magistrates were warned to, and did, make arrangements for checking the spread of the disease and treating the sick. Supplies were provided on the roads by which the pilgrims were diverted.

Cholera medicine was supplied to every Police post; 30,000 pills were distributed in the Meerut District alone.

Sweepers were stationed to keep the encampments clean, and to destroy all matter by which the disease might be spread. I believe every measure was taken that could be thought of, to avert and combat the disease.

118. The Inspector-General of Hospitals, Doctor Murray, was at Meerut, and superintended the arrangements, visited the hospitals with the Deputy Inspector, and was, I believe, satisfied that all that could be, was done.

119. The return of sickness and mortality should show separately the cases among the pilgrims *en route*, from those which subsequently occurred when they had reached their homes.

120. Beginning at the fair itself, there were 19 cases; 11 fatal at first; altogether 64, of which 48 were fatal.

121. The stream being diverted, Roorkee escaped with only a few cases, owing to Captain Orman's excellent arrangement.

122. At Mozuffernuggur, 60 cases were admitted into the Dispensary, of which 13 were fatal; 27 patients recovered, 20 were taken on by their friends; 1,423 cases were treated on the road. The Magistrate, Mr. Martin, and the Civil Surgeon, Doctor Kirton, did everything that could be done. It is evident that Doctor Kirton worked most zealously and successfully. Mr. Martin conjectures that some 2 or 300 must have died on the road among those passing through the district; with what correctness, it is impossible to say.

123. The number of cases reported as having occurred among the pilgrims *en route* in Meerut was 487, of which 110 were fatal.

124. It is not easy to discover the number of cases in Boolundshuhur among the moving crowd, but the total return up to the 25th of May of all cases in the district was 430, 47 of which were fatal.

125. In Allygurh, the cases became merged into those that broke out subsequently.

126. On the Seharunpore route, a case occurred at Bhugwanpore on the 13th; on the 14th, there were 14 cases treated at Seharunpore, 27 on the 15th, 26 cases on the 16th, and 14 cases on the 17th; total 82. There are no more clear returns of cases among the moving crowds; those in the other returns are mixed with cases of a later date.

127. There is no doubt many deaths must have happened which were not reported, and relief given in a very large number of cases which were not reported; for medicine was freely distributed everywhere.

128. I do not attempt to give any account of the number of cases and deaths that have occurred in the districts of the division since the pilgrims reached their homes. A most careful analysis of a large number of returns would be required to prevent mistakes, and this is a work which would greatly delay the despatch of this report. It is one which should be performed at leisure by a Medical Officer, and which would be one of the first duties of the Sanitary Officer. Most interesting and valuable data might be obtained from such a return.

129. I need hardly say, with reference to the inquiries of the Sanitary Commission, that there is no doubt that the disease appeared on the last day of the fair, when the whole division was free from it on the 13th of April; and though the poison was evidently quickly diluted, and, as a general rule, the disease has disappeared, it hangs still about a few localities; regarding these special reports will be sent.

130. At first it was entirely confined to the pilgrims; the instances in which persons who had not been to the fair were attacked were very exceptional.

131. Never perhaps in the history of cholera was there such a marked case as this.

132. A stream of probably half a million passed Roorkee, which remained unscathed at the time, rolled through the centre of the town of Mozuffernuggur, for there was no other road, with only one solitary case then occurring, that of the wife of the Native Doctor, surged for days against the Meerut road, Police post and hospital, and passed the place almost within sight of the troops and residents, among whom there was not a single case then or afterwards. Below Meerut it split on to so many different roads, and so fast dropped its atoms as they reached their resting places, that it became mixed with the ordinary population, as a river merges in the ocean.

133. This stream was deeply tainted, but passed through the country, hardly affecting an individual resident. Many of those whose duty it was—the Magistrates and the Police, the Medical Officers and their staff—went into the stream to lend a helping hand, and were received with blessings by all—blessings for the unusual arrangements at the fair, of which only the great multitude thought, hardly aware of the insidious enemy which was seizing its victims, and blessed by those whom their care and treatment saved from death.

134. It was not till the individuals of this crowd mixed with the resident population that the latter were affected, and I believe it will be found that the extent to which those who had not been to the fair were affected was very small generally in this division. A very great majority of the cases which swell the mortuary returns were those of returned pilgrims.

135. I believe that the thanks of Government and the people are due to the officers, who, after the breaking up of the fair, made such good arrangements for the care of the sick, and for the prevention of the spreading of the disease. I have mentioned Captain Orman, Mr. Martin and Doctor Kirton, Doctor Murray and Doctor Guise. At Meerut, Mr. Forbes's arrangements were most judicious and prompt, and Doctor Moir assisted zealously in carrying them out. It is owing to these officers that the exclusion of the pilgrims was so rigidly enforced, and the Cantonment escaped. Subsequently, whenever the disease broke out in the interior of the district, Native Doctors and medicine were forthwith despatched, and Doctor Moir proceeded to superintend the arrangement.

Captain Dunbar also assisted.

In Boolundshuhur, Mr. Webster and Doctor Hadow were ready before instructions reached them. In Allygurh, too, Mr. Lawrence, Doctor Kilkelly, and the Superintendent of Police, were ready and watchful.

I must not omit to mention that General Troup, immediately on the receipt of the news of the appearance of the disease at Hurdwar, directed the officers at Roorkee and Meerut to take steps for preventing the Cantonments being affected, and watched closely the operations of the District Officers.

136. Though I do not dare to attempt to decide what was the cause of the outbreak at Hurdwar, I thoroughly believe that it was mainly owing to Dr. Cutcliffe's great exertions and unceasing care, and to the judicious suggestions he made, when the instructions for the guidance of the officers at the fair were being prepared, that a more terrible outbreak did not occur.

137. The reports of all, and his own most valuable report, show what high qualifications he has displayed as a Sanitary Officer. If any deserve praise and reward, he does. The most acceptable mode of recognizing his services, and one which I believe would be the commencement of a

very much required sanitary reform generally, and by which professional talent of a high order, and peculiarly fitted for the work, could be devoted to further and still more strenuous endeavours to prevent cholera being generated at, and spreading from, these fairs, would be the appointment of Dr. Cutcliffe as Sanitary Officer.

His exertions in this line, when in medical charge of Mussoorie, are known to, and have been appreciated by, Government.

The tact which then conciliated and won over to his views the Municipal Commissioner,—a quality essential to the success of the experiment which I advocate—was eminently displayed then, and again has been at this fair.

138. I trust that Government will recognize the necessity for appointing a special officer for this most important duty, and Dr. Cutcliffe's strong claims to be selected for it.

F. WILLIAMS.
Commissioner.

ARRANGEMENTS FOR THE HURDWAR FAIR, 13TH MARCH 1867.

GENERAL ARRANGEMENTS.

The open, unoccupied land of Hurdwar and Myapore towards Jowalapore, west of the Canal and Rooree, *i.e.*, the Mujiara, or island between the Canal and the Neeldhara, Bijnaour side. Government property, has been divided into blocks by longitudinal and cross roads. Owners of private lands have been directed, and must be made, to lay out their grounds on the same principle.

2. On the west, or main land side of the Canal, the old roads suffice; but as the island is a scrub forest, with only a path or two through, to what used to be the main stream of the Ganges, Neeldhara, it has been necessary to open it up.

3. This has been done by five main longitudinal and three main cross roads, besides those of the horse fair south, and five diagonal roads converging on Nos. IV, V and VI Boat-bridges, and from Neeldhara to the east bathing-place.

4. It is desirable to name these roads.

5. The most westerly one under the Canal spoil bank, 50 feet broad, beginning at the Kunkhul, or southern end, and joining the next road near IV, V and VI Bridges, may be called Nuhurwalla-rasta.

6. The road, 100 feet broad, the main road, commencing on the south at the Kunkhul passage of the escape channel, and passing the east bathing-place, and by Bridges Nos. II and I, ends on the Dehra road. This may be called Kunkhul-Dehra-ka-rasta.

7. The next to the east, 50 feet broad, may be called the Bhowanee Muth-ka-rasta.

8. The next commencing from the water under Lalljeewala, and, after a short straight course, following the flood channel, or Rao, may be called Rao-ka-rasta. This is the 50 feet broad.

9. The most easterly, 80 feet broad, along the edge of the main stream, may be called the Neeldhara-ka-rasta.

10. These are the north and south roads.

11. Beginning with the other roads on the north end—

12. The first from north-east corner of Lalljeewala to east bathing-place, may be called Maharajah-ka-rasta.

13. The next first, 50 feet broad, leading from the village-site of Lalljeewala to the bathing-place, may be called Lalljeewala-ka-rasta.

14. The next from the south-easterly point of that village area to the east bathing-place may be called the Kutola Bund-ka-rasta.

15. The next, from the same point to the Bridges Nos. IV, V and VI, may be called the Pool-ka-rasta; the Chundnee Muth-ka-rasta will be that from the same point to the same bridge.

16. The next across, straight from the Canal to the Neeldhara, 100 feet broad, may be called Beech-ka-rasta.

17. The next, 100 feet broad, from Lulta Rao bridge to the Neeldhara, may be called Lulta Rao-ka-rasta.

18. The last, 500 feet broad, may be called Ghora Mundee-ka-rasta.

19. The roads in the main land are known, *viz.*, Rasta Jowalapore, Myapore to the junction at Lulta Rao; thence Hurdwar-ka-rasta to the bathing-place; thence into the Doon-Dehra-ka-rasta.

20. The 100 feet broad bed of the Lulta Rao, between the junction of Jowalapore, Myapore and Hurdwar roads, and Nos. VII, IX and X Bridges, may be named Mojhara-ka-rasta.

21. It would be as well to have boards put up, with the names of the roads in the Persian and Hindee character in large letters.

22. The blocks formed by these roads will be the sub-divisions, "Mohullas," of the "Police stations," "Chowkee," which last will contain the space between one or more cross roads, or main longitudinal roads.

23. Each Police station will have a number, and a flag representing that number by white and red colours.

For instance, No. 1, a plain white; No. 2, half-white, half-red; No. 3, red white, red; No. 4, white red, white red; No. 5, the same, with a semi-diamond shaped addition to the flag, and so on.

24. The numbers will commence in the north side, *i.e.*, Dehra Doon side, with No. 1; the last numbering on the south, or Kunkhul end. The sub-divisions will be numbered from west to east.

Flag-staffs will be erected at each Police station, and flags, six feet on fly, and four feet on hoist, will be provided.

25. There will be 10 Bridges of boats, No. I on the Dehra road side Canal branch north of Hurdwar; No. II in the next branch; No. III just above the Hurka Pyree, or bathing-place; Nos. IV, V and VI just below the same; No. VII below that.

Nos. VIII, IX, and X opposite the Lulta Rao. The last two will have strong sleeper road-ways for carts. The others will be for foot passengers.

26. Each bridge will have a flag-staff and flag, indicating the number by the number of colours—No. I being blue, and so on.

27. The boards with the Police station and bridge flags will be perfect guides. The flags will also be of use as signals. The lowering of a flag quarter-mast would show something trifling, meaning assistance wanted. A flag half-mast high would show something serious, meaning full assistance wanted. It would be easy to make a code for communication of any orders.

28. At the south end of Rooree island, the horse fair has been lined out; thus a 21-feet broad road No. 1, from west or Canal, to east or the Ganges main channel; then 21 feet for horses, with heads to No. 1 road, heel ropes to five feet broad passage. Another row of horses, 21 feet broad, with heel ropes to this passage, and heads to road No. 2, which is 21 feet broad, and so on; ten feet of width on each 21 foot line will be allowed for each horse, with a similar area for the owners.

29. The Police at Bahadoorabad and Jowalapore Canal bridges, Roorkhee road, should direct all horses for sale to go by the old Kunkhul road to the road across the escape channel into the south end of the island.

No horses for sale should be allowed to go into any other part of the fair.

30. Next to the horse fair, or to the north side, the blocks or sub-divisions will be set apart for the Bagrees, *i.e.*, the people who come with their families on camels.*

These should all be similarly directed to the south end of the island.

31. Carts intended to go to the island should be directed by the old Kunkhul road, and the passage over the escape channel to the south of the island, or to the middle by the Jowalapore and Mujhara road, and Nos. IX and X Bridges.

32. No squatting promiscuously on the street or on the roads will be permitted on any account; the streets and roads must be kept quite clear, not only those named above, but all in Hurdwar, Myapore and Kunkhul.

33. Irregular squatting will not be permitted even on unoccupied ground available for pilgrims; such ground must be marked out into convenient little blocks by little roads or paths straightly aligned at right angles to main road. The owners of the ground must do this at once; on Government ground, the officer in charge.

34. Special arrangements will be made by the Magistrate for positions for camps of Native Chiefs.

35. All wealthy, well-to-do pilgrims, will be desired to select their sites for their camps on the principle that the ground near the bathing-places should be left for the poor, with women and children, so that they may not have far to move on the bathing day. Those who can afford it can be carried from greater distances to near the bathing-place.

* If by a mistake of the Police such horses for sale or camel people have got into the Jowalapore and Hurdwar road, they should be crossed to the island and horse fair by the Mujhara road.

36. On the bathing day (and indeed it would be as well to commence the practice at once—with one exception, viz., the Bridges Nos. VIII. and IX. and X. on the Mujhara and Lulta Roa roads, which must for the present be used both for ingress and for egress) all roads and streets on the west of the canal or mainland side will be approaches to the bathing-place.

37. For example, the Doon people wishing to bathe at the Hurka Pyree will approach by the Dehra-Hurdwar Government road, bathe and cross No. III, and back by Nos. II. and I. to their tents, bathing north of the great steps.

38. People from the island will cross by Nos. VIII. and IX. and X. Bridges, go up Jowalapore and Hurdwar roads, bathe at the steps, and re-cross by Nos. IV., V., and VI. Bridges.

39. Residents of Hurdwar proper will find their way back by Bridge No. VII. to their homes, mixing in the same direction with the up-going crowd without collision.

40. Those for the island will disperse on the island.

41. Those for Myapore, Kunkhul, and Jowalapore will cross by Nos. VIII. and IX. and X. Bridges, thence *via* Mujhara road to the double Myapore and Jowalapore road.

42. Here there is ample space for crossing to any direction, as the place where the roads meet is more than 200 feet broad.

43. There is such ample room for those bathing on the east side that no special directions are required.

44. The usual arrangements of barricades, &c., will be made by the Police.

45. The sweetmeat-makers in the Hurdwar bazaar and on the Dehra road will be strictly prohibited from having any fires; they must arrange to make their sweetmeats in less dangerous places. They must be warned that on the bathing day—indeed, as soon as the crowd becomes large—not a fire will be allowed in the whole line.

46. The following arrangements have been made at the bathing ghats, which give much greater room for bathing with greater safety than ever before:—

47. An esplanade has been made from each side of the bathing steps, as far as the end of the part considered sacred, and thence to the boat-bridges.

48. In front of these, for a width of 30 feet, and therefore for a greater width immediately opposite the steps, the water will be shallowed to two and a half feet with an even bed.

49. On the stream side all along, from Bridge No. III. to the spur on the south esplanade, there will be a continuous railing above, on boulder-fitted crates below water, making passage into the strong stream almost impossible; and outside of this, on the stream, will be boats and men with inflated skins ready to help in case of need.

50. Similar arrangements will be made on the east side.

51. It is almost unnecessary to add that as all bathers on the west side must cross over to the east after bathing, there will therefore be no counter-current of the crowd.*

52. As four bridges have been provided, the stream of bathers across to the east should be quick and ample.

53. The following conservancy arrangements have been made with the consent of Mr. Cutcliffe, F. R. C. S., the Seharupore Medical officer in charge of the medical and sanitary duties:—

54. Wherever there is good soil—for instance, on the hill west of Hurdwar, behind the Magistrate's hill, behind the Police, and behind the ground facing the same on the east; in the bamboos on the north side of the Lulta Roa, in the bamboos on the west side of the Myapore west boundary, in the bamboos on the east side of the Myapore road—trenches one foot wide, and as deep as practicable up to three or four feet, will be forthwith dug; the earth excavated will be thrown up one foot and a half from the edge of the trench. Between the excavated earth of one trench and that of another, sufficient roadway, say three feet, will be left. Over these trenches the people will sit; sweepers will be placed in charge of each trench, or set of trenches, to cover with a handful of earth every deposit as soon as possible. The depths of the earth covering over each day's deposit should be six rammed inches†. When a trench is filled up, a new one can be dug on the space before left for roadway, the roadway then being over the filled trenches.

55. As far as possible, advantage should be taken of thornless trees, bushes, bamboos, &c. to secure privacy for men, the trenches being dug in these bushes.

56. The place for the women, if not naturally must be artificially screened, must be a separate enclosure, without any interior divisions, but there must be shallow trenches in this also. If there happen to be bushes or trees in the enclosure, they need not be cleared away.

57. The screens can be made with the stems and branches of the bushes from road clearings, clearings for tents, &c. The stems and branches of the Busa, or Bueouta, which grows freely all over the place, laid across each other, will make a sufficient and a cheap screen.

* On this principle no elephants or horses can be allowed on any of the approaches to the bathing-place in Hurdwar as they cannot cross the river, and cannot possibly be allowed to return against the crowd; all such processions must go to the east bathing-place.

† This must be earth, not stone.

58. The course to be followed in laying out a block on the island will indicate more fully the nature of the arrangements suggested.

59. From the main roads forming the block towards the centre of the block, paths 10 feet broad will be made from all four sides, as many as are necessary, according to the size of the block leading to an interior parallelogram proportioned to the size of the block.

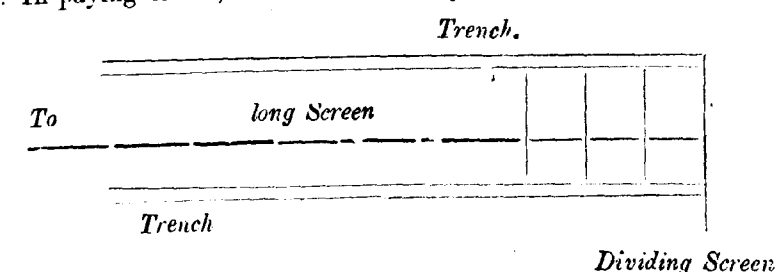
60. These paths, and the ground adjoining them all, except the parallelogram, will be cleared for tents of all brushwood; all trees and shade-giving bushes must be left, except in the paths which will be marked by dugbel, or a row of stones, and which must be cleared of trees as well as of bushes.

61. All bushes fit for screens will be kept for that purpose; all wood, thorny bushes, and other stuff not fit for screens, will be felled on the main roads, to be carried off for fuel for kilns—See paragraph 73.

62. The parallelogram will be left uncleared jungle, if it happily is such, only the branches of thorny trees from the ground to six feet high being pruned away, and all thorny bushes cleared out entirely. The Busa and such bushes should be left, and among them, with as much regularity as possible, trenches must be dug. At each end of the parallelogram a piece will be set apart for women.

63. When the centre of the blocks is open and clear, the parallelogram must be made with screens formed of crossed stems and branches of Busa, and such bushes, grass, &c.

64. In paying blocks, interior screens may be erected for the men:—



The Busa bushes, &c., will come from the clearing of roads or neighbouring block.

65. Each main path will end at the edge or at the screen of the parallelogram, with, of course, an opening in the enclosure screen.

66. Trenches must be dug only where there is soil above the beds of flood channels. In flood channels trenches must not, and on sand and boulders over which floods spread they must not and cannot be dug. For such places other treatment is necessary.

67. In such places a similar parallelogram in the centre of the block must be reserved, and enclosed with a screen, with enclosures separate at each end for women.

In the screened part, as far as possible, small shallow pans* must be placed. As the number of these procurable will be far less than the requirements, when pans cannot be got, the stones must be removed (they will help to make screens), and the people must sit on the sand.

68. The sweeper will remove each deposit in baskets to a larger basket or vessels, into which the stuff will be put for removal, and in which it will be removed as soon as possible, to be burnt in kilns constructed as follows, to be erected at convenient spots out of the crowded parts, on the east edge of the sandy and boulder flats, so that the flames may go to leeward.

69. Earth, if practicable, if not sand, must be spread on the parallelogram to receive the filth and urine. The filth will be removed daily, as directed above, to be burnt. Each day the earth or sand impregnated with urine must be removed, and fresh earth, or, failing earth, fresh sand spread on parallelogram. The earth or sand removed is to be buried in one-foot-deep trenches or in pits dug near for the purpose. The object is that the urine may not sink into the soil of the parallelogram, and this object must be secured. Earth should be brought to spots where it is required at once.

70. Kilns ten feet high, wall one and a half feet thick at base, one foot thick at top, enclosing a space of four feet diameter, with a small opening in the foot of the west side wall for lighting the kiln. Inside walls, north and south across, two and a half feet high, one foot thick, three or four inches apart, with an arched opening corresponding to the changing and lighting opening in the west wall. This opening or arch may be one foot wide, by one and a half high, the walls all, and the arches to the west and east, to be made of mud *ghurrah*.

* As large a number as possible of these must be procured immediately from all the neighbouring parts of the district.

71. Of course, the kiln will be open at the top and from above, the filth mixed with grass stems and branches of thorny bushes, wood and trees cut off roads, &c., and all dry rubbish will be dropped in layers, with a good thick layer of fuel below, resting in the cross walls each time the kiln is charged, which will be generally in the early part of the forenoon.

72. The opening in the west being charged with combustibles, fire will be put when the kiln is ready. Fresh deposits can be added above as it burns. The residue should be ashes, which will serve as a deodorizer; three or four kilns will do for the largest spread of sand and boulders which there is.

73. A provision of fuel for these kilns has been made in the paragraphs regarding road-clearing. Should this supply fail, any amount can be got from the scrub forest up and down the river.

74. The head Police Officer on each block will at once be put in charge of the conservancy arrangements, with a sufficient force of trench-diggers and sweepers, whom he will at once fully instruct how to carry out these directions. He will also explain the subject fully to the people of his block.

75. He and the head officer of the station will be responsible that these rules are carried out from the first, and strictly enforced.

76. The European Inspector and Superintendent, and the Magistrate, all will see that conservancy is properly carried out.

77. Mr. Cutcliffe, with whose assistance and concurrence these sanitary rules have been framed, will, as far as his other duties permit, see that they are carried out.

78. The Magistrate will arrange with Major Watson to have a European Inspector placed under Mr. Cutcliffe's orders as Deputy Sanitary Officer.

79. All offenders committing nuisance contrary to these rules should be punished.

80. The following medical arrangements have been suggested by Mr. Cutcliffe. The Magistrate will kindly give Mr. Cutcliffe effective assistance to carry them out.

81. A dispensary will be established on the triangular piece of ground between the roads east of Nos. V. and VI. Bridges. The ground towards the canal should be raised the full width of the available space in the centre, with its rear on the canal side closed, and the opposite side open, and both gables closed will be the dispensary shed; the thatch will rest on centre poles, and will be supported by side poles, strong enough to stand against the high wind.

The gable on the hawser side will be guarded by stiff posts, as also the side of the Native Doctor's hut.

On each side of the dispensary in the corner will be a hut for the Native Doctors.

82. To this dispensary, which will be distinguished by a yellow flag, the Police Officers in charge of stations and sub-divisions will direct all persons in want of medical aid.

83. A central hospital, No. I., will be established on the high spoil-bank in the south-west corner of the ground east of the Myapore road, and north of the canal Regulator bridge facing the entrance to the Myapore Forest-house.

84. The ground, with the ground around it, should be at once cleaned and cleared.

85. On the top will be raised hospital wards, with thatched roofs, floor 20 feet broad, sides ten feet high to the rear of the roof, and as long as the ground permits. These wards will be placed *en echelon*, the gables being north and south; screens should be provided for the side exposed to the prevalent winds, which screens can be shifted from one side to the other, as the day and the night wind blows. As many wards will be hereafter made as the ground admits of, but at first space will be provided for 100 patients.

86. A separate hospital, No. II., and a hospital for decidedly contagious and infectious cases, No. III., will be established on the ground bounded by the canal on one side, the Jowalapore road on the west, the road from that to Myapore Forest-house on the north, and the Myapore house and grounds on the east.

87. There is a good open place. It is out of the way, easily cordoned, and has rooms for many people.

88. The dangerous hospital, No. III., will be near the canal bank, south-west of the bamboos; the other hospital, No. II., north-east of the bamboos in the open field near the road from Jowalapore road to Myapore house.

89. A ward for 100 patients, similar to those described above, will be erected to commence with at each place.

90. At each hospital there will be accommodation for Native Doctors, &c., for which Mr. Cutcliffe will give instructions.

91. The Magistrate is requested to lay in posts, bamboos, grass, &c., for the dispensary and these hospitals as soon as possible, and to place intelligent overseers and labourers of all requisite sorts at Mr. Cutcliffe's disposal to erect them.

92. The Magistrate is also requested to get the following articles procured:—

For hospitals, common native beds 300, to be distributed at the different Police stations. The dispensary and hospitals, for removing sick, as *doolies*, Native beds 100, with bamboos and ropes—total 400. Bearers must be provided for these *doolies*.

Blankets	125
Ghurrahs, large	125
Ditto, small	75
Ditto, for filters	75
Total	400
Filter frames	25

Posts arranged triangularly with cross rails, three in number, two feet apart for the *ghurrahs*, the posts to be five feet high.

Koondahs, earthen vessels, for bed-pans, 75.

Tables, 4 large	3½ feet × 4 × 8
Ditto, 4 small	2 „ × 3 × 4

to be made of the cheapest wood.

93. The Magistrate is also requested to entertain attendants, water-carriers, cooks, &c., according to Mr. Cutcliffe's requirements; also to pay on indents countersigned by Mr. Cutcliffe, which will show amount and price for all drugs and medicines indented for.

Also to place two *chuprasees* at Mr. Cutcliffe's disposal as orderlies.

94. The Magistrate is requested to arrange with Major Watson that the Police at once report to Mr. Cutcliffe any outbreak of sickness; to send any persons found suffering from small-pox, cholera, or any such palpable disease, at once, with the rest of the patient's family, if there is any, to No. III. Hospital, not allowing them to remain in the fair on any account.

95. To station a sufficient cordon of Police round the same Hospital No. III., at such a distance round it as to leave ample room to secure that no pilgrims or persons save those sent there get to it, and that those in it do not leave it.

96. The Dehra Doon side Police will be directed to prevent any persons suffering from small-pox to enter the fair at all. The Superintendent of Dehra Doon will be requested to proclaim this by beat of drum at the Dehra fair, and to have all pilgrims on the road warned, so that they may abstain from coming, only to be turned back. The Police on the Roorkee and Peeran Kulliar road and on the Rohilkund side should give similar warning.

97. If (which God forbid!) there should be any outbreak of sickness, everything must be ready for extending accommodation.

98. It has been noted above that the Police should direct all incipient cases of sickness of any sort at once to the dispensary.

99. Mr. Cutcliffe will make his own arrangements for keeping simple registers of cases, &c., &c., ascertaining in each case whence the patient came, and where he or she first fell ill.

F. WILLIAMS,
Commissioner.

PROPOSAL FOR THE APPOINTMENT OF A SANITARY OFFICER FOR THE MEERUT DIVISION.

The grounds on which this measure is advocated have been shown in the Report on the great Fair at Hurdwar in 1867.

2. The main ground is the urgent importance of making every endeavour to introduce and enforce well-devised sanitary arrangements at the Ganges fairs, particularly those at Hurdwar, and at all great gatherings of the people, and on the lines of approach to, and return from, these fairs, in order that, if possible, they may cease to be hot-beds of cholera, from which the disease spreads widely and rapidly, not only over this country, but thence through the world.

3. A matter of minor but still of great importance is the introduction and extension among the people of simple sanitary measures, which would avert a vast amount of sickness and mortality.

4. The appointment of special officers for sanitary and medical purposes is not without precedent. The success of concentrated efforts in limited localities, as compared with the results of attempting to act by distant or over-worked agency, is exemplified in many ways in India.

5. In endeavouring to combat such a disease as cholera, the propriety of having a highly qualified Medical Officer, if it were only to carry out the suggestions of others, must be apparent; the advantage of having one well fitted to direct measures himself cannot be questioned.

6. The campaign of Doctor Pearson against mahamurree in the hills and the vaccine operations, as lately conducted, are good examples of what may be effected by tact and management, and the influence thereby acquired constantly exerted in overcoming old prejudices.

7. The Natives who came to this Hurdwar fair, disturbed by rumours of innovations, went to their homes deeply impressed with the capacity for systematic arrangement exhibited, the benefits which resulted from those arrangements, and the untiring zeal and considerate kindness with which they were carried out, and a predisposition to favor the general adoption of them, which would make them welcome a Sanitary Officer as a friend.

8. I hope it is only necessary to show how the means of meeting the cost of the appointment of such an officer, and the required establishment, could be provided to ensure the adoption of the suggestion.

9. Considering the terrible effects of the spread of cholera, and the deep responsibility involved, the feeling of which doubtless inclines Government to favour any reasonable proposal for mitigating the evil, and the serious financial consequences of the disease attacking European troops, I presume there would be no objection to the deputation and employment of a 1st Class Surgeon on this duty, and that Government would bear the cost of the bare salary of such an officer.

10. Beyond this no aid is required; there are happily local funds from which all other charges can be, and most legitimately might be, defrayed.

11. In the following schedule, therefore, the pay of a 1st Class Surgeon has been set on one side as provided by Government:—

12. *Schedule.*

	Rs.
Sanitary Officer, Rs. 1,200, from Local Funds.—Pay to be met from Imperial Funds. Staff salary	650—550*
One Deputy Sanitary Officer	150
One Assistant	120
One Native	60
One	50

1,030

Office Establishment.

	RS.
One English clerk	100
One Native clerk	30
Contingencies	100

230

1,260

12

15,120

Add travelling allowance, probably about 4,380

The total cost would be 19,500

13. There are six districts in the division, but I exclude Dehra Doon, as there are no funds forthcoming from that district.

14. Distributing the total annual charges, Rs. 19,500, among the remaining five districts, the share of each would be Rs. 3,900.

15. This charge could be easily met by very moderate contributions from each Municipality under Act XXVI of 1850, and each town under Act XX of 1856, in proportion to their surplus income. The balance, similarly calculated with reference to proportion of the total surplus income of towns to the total of municipal cess and house assessment surplus, would be a very small charge against those village funds.

16. Indeed, in the course of time, the entertainment of a sanitary establishment on a scale suited to the requirements of a district, instead of a division, would be as feasible as regards available funds as that of a District Engineer.

17. The income of a 1st Class Surgeon, including Jail, Dispensary, Railway, and other allowances, and that from private practice, may be fairly estimated at above Rs. 1,000 a month. An allowance of Rs. 1,200, to secure the services of a highly qualified, and therefore selected

*The new warrant may make the Government share, and thenceforth the charge against Local Funds Rs.600 equally.

officer, is not excessive. The arrangement for his drawing the salary of his rank, and a staff allowance, is in order to induce him to retain his appointment, and work willingly and zealously in it through all changes and promotions.

18. The pay of the Deputy and Assistant Sanitary Officers has been fixed with a view of securing, if such were available, European Hospital subordinates, the men best qualified for the work.

19. The salary of the Native Assistants, in order to attract the best Native Doctors.

20. The English clerk must be an efficient man, as he will have the rough preparation of elaborate statistics. Such clerks cannot be got for such a wandering life without good pay. The Native clerk should be paid a little higher than the 1st class office subordinates are.

21. I need hardly specify the duties of this sanitary establishment, having done that in a general way.

22. But may say that the primary duty would be the regulation of all arrangements for the fairs on the Ganges, and all such large gatherings, the selection of special roads, not main highways, for the coming and returning crowds, so that from whatever direction they may come, they may come and return by selected routes, the preparation of encamping grounds at suitable distances on every route, and the laying out of the ground at the site of the fair or gathering for the reception of the crowd with similar arrangements on the most approved principles, and the supervision and enforcement of all sanitary rules, the provision of hospitals, and all such medical preparations for an outbreak of sickness, or for the treatment of ordinary cases.

23. In fact, he would superintend the carrying into execution of every precaution that the Cholera Commission or Sanitary Commission, or his own experience could suggest to prevent the outbreak and spreading of cholera.

24. In the intervals between the fairs he would have leisure to advise and aid and urge on Municipal Commissioners in the matter of sanitation and conservancy of their towns, and assist the Magistrates in towns under Act XX of 1856, and in carrying out the suggestions contained in Circular No. 42A, of the 27th of December, in all villages.

25. I believe the appointment of a sanitary officer would make feasible what at present the district officers seem to consider almost hopeless without legislation, viz., the general introduction of the excellent measures recommended in that resolution. The influence which an intelligent medical officer moving leisurely among the people, and showing to them practically the benefit and profit which would follow the adoption of those measures, would be more effective and far safer than the arming of the Police with the most stringent powers.

26. He would, as health officer, take notice of all matters affecting the general health.

27. He would check and correct, and thus make much more valuable than they now are, the mortuary returns, and such registers.

28. He would gradually collect and arrange statistics that would be most valuable, and guided by them he would, I believe, suggest and carry out improvements in the sanitary condition of the people, which would be of incalculable benefit.

29. I have suggested the source from which funds would be forthcoming.

30. The aggregate of the municipal cess, and the house assessments under Act II of 1865 and 1866, will be large, and the surplus available, after providing an efficient rural constabulary, will be considerable; ample not only to cover the cost of the sanitary establishment, and of sanitary arrangements for fairs, but to admit of extensive assistance being given in the shape of grants-in-aid to carry out improvements in villages; still leaving a margin for support of Agricultural Societies and other purposes.

31. On the completion of the settlement and the house assessments, there will probably be Rs. 30 or Rs. 40,000 in the smaller districts, and more in the larger ones, as Meerut and Allypore, annually available. Already in the Seharunpore and Mozuffernuggur districts, there will be in a month or two, or is already, sufficient in hand to warrant the immediate appointment of the Sanitary officer, and in all other districts, save perhaps Allypore, the funds will be forthcoming within a year.

32. The Sanitary officer would form his establishment by degrees, but with the money now available, and contributions from municipalities and towns under Act XX of 1856, there would be money enough to meet the monthly charge for the full establishment at once.

33. I believe, if the proposal is favorably received by Government, the active co-operation of all district officers may be safely anticipated.

F. WILLIAMS,
Commissioner.

(COPY.)

From H. D. ROBERTSON, Esq., Magistrate of Seharunpore, to the Commissioner, Meerut division; dated Seharunpore, 27th May 1867, No. 102.

- 1.—Major Watson's report regarding the Police arrangements to the address of the Inspector-General of Police, No. 87, of 20th April 1867.
- 2.—Police returns, pay, etc.
- 3.—Dr. Cutcliffe's report on the sanitary arrangements at Hurdwar, dated the 21st May 1867, which includes the following papers:—
 - (a) Dr. Richardson's report and returns for the portion extending into Dehra Doon.
 - (b) Dr. Garden's report and returns do. do. in Bijnour.
 - (c) General return of all the hospitals at Hurdwar.
 - (d) Cholera returns showing progress of epidemic as shown by a map.
 - (e) Hurdwar cholera hospital returns.
 - (f) Seharunpore do. do.
- 4.—Plan of Hurdwar showing position of bridges copied from one originally prepared by Captain Forbes, R.E.
- 5.—Statement showing receipts and disbursements of rents of the Nuzzool land at Hurdwar.
- 6.—Statement of rents collected at Hurdwar.

2. The fair of 1867, termed by the Brahmins the Maha Kidar Coomb, was viewed by a considerable number of the natives as the last Coomb that would be held at Hurdwar, which undoubtedly induced a very large gathering. On investigation, it appeared that the term Kidar was rather capriciously assumed, merely as a distinguishing term, Hurdwar being, in the old Hindoo sub-division of the country, called Kirdar Coond. On inquiry further, the Brahmins asserted the existence of a prophecy, foretelling that the Ganges would cease to be considered a sacred stream after the next Coomb, which no one would attend from sorrow at the supposed early departure of the sanctity of the river, and hence that the fair of 1867 would be the last Coomb of any magnitude. However, in requesting to be shown the passage where the prediction existed, the Brahmins acknowledged that it was of recent date, originating apparently when the Ganges canal was projected. But the most evident result of the Ganges canal has been to increase, not diminish, the depth of the water in the Ganges at Hurdwar; and some of the Brahmins virtually acknowledged that the supposed prophecy merely indicated that they were swimming with the tide. But the prophecy, whether of ancient date or not, when publicly acknowledged, is equally significant of an approaching change. It declares, in fact, that the Brahmins admit that advancing intelligence is undermining both their influence and that of the Ganges, and that they are prepared to meet this change in public opinion as a circumstance long foretold. But amongst the bathers at the sacred ghat, I noticed men who had held, and might still expect to hold, the highest positions attainable by Natives in this country, who were essentially imbued with European ideas, and were a century or more in advance of the masses amongst whom they were mingling. The future existence of these Hurdwar fairs would seem to depend on whether the conclusions of these generally far-seeing Brahmins be correct, or whether the Ganges at Hurdwar would still continue to exercise a charm over millions in India, as it does even now over men of the highest order of intelligence in the country. Without entering into a long train of curious deductions which might be drawn from the supposed prophecy, perhaps the Brahmins have miscalculated the facility with which a nation can pass through a change of this character, in which case we must expect a continuance of these large gatherings, and be prepared to improve, if possible, our arrangements at every considerable fair, by the experience gained at that preceding. Hence it may be useful to give a more detailed report of the last Coomb, than would otherwise have been required.

3. In connection with the arrangements for the fair, I had referred in June 1866, with the view of ascertaining whether the depth of the water could be diminished opposite Hurdwar, and consequently in the Ganges canal. As the question presented some engineering difficulties, and the course to be finally adopted by the Canal Engineers was not decided till the 9th of January 1867, I had deputed the Assistant Magistrate, Mr. G. R. C. Williams, to Hurdwar in November last, to pave the streets with stone, re-construct bridges, &c., so that should any difficulties exist in arranging for the removal of the crowds after bathing to the islands opposite Hurdwar, they might pass through one of the paved streets, without the same risk as formerly existed, of converting an unmetalled road into a deep swamp, when the returning pilgrims passed over it with wet clothes. The Canal officers having agreed to the proposals with reference to the number and position of the boat-bridges, portion of this work did not possess the same value, unless, as really did happen, a heavy fall of rain occurred on the night preceding the great bathing day. But these improvements are of a permanent character, and will always be an advantage during the smaller fairs, when only one or two bridges are constructed.

4. On the 9th of January 1867, accompanied by the Canal officers, you met Major Watson and myself at Hurdwar, when the position of the bridges was determined. Those intended for the removal of the people after bathing to the islands opposite Hurdwar it was agreed should be placed exactly at the bathing ghat. Somehow Captain Forbes misunderstood the decision, placing these

I have the honor to enclose the letters and papers marginally noted, which include reports from Major Watson, District Superintendent of Police, and Dr. Cutcliffe, in charge of the sanitary arrangements at Hurdwar, and I also beg to submit a general report in connection with the last Hurdwar fair.

important bridges considerably above and below the ghat, connecting it with the bridges by a road of boulders, which was constructed in rather deep water. Subsequently, at my request, Captain Marindin altered the position of the lower bridges, which through a misconception had been placed in a too rapid current, which seemed to render it insecure; while Captain Marindin kindly increased the number of bridges at this point, which proved a very important improvement. The roadways constructed by Captain Forbes, both above and below the chief bathing ghat, will be a great advantage to Hurdwar, and will much facilitate the management of the smaller fairs; but in a large fair, such as the last, the position of the bridges rendered it necessary that our arrangements should be of a much more intricate character than there was any necessity for. In future large fairs, it should be considered of the greatest importance that the bridges be constructed exactly at the sacred ghat. By bridges at this point the crowd will at once be transferred to the island, which would enormously economize the labours of the Police and European officers engaged in the management of the fair, while reducing the probability of accidents occurring. For instance, the bridge above the ghat had to be managed by a separate and large staff of European officers and Police. Mr. Daniell, the Superintendent of the Doon, with Mr. Ward, his Assistant, taking charge of the west end of the bridge and the roads, uniting it with the Doon road, while Mr. Williams, Assistant in the Seharunpore district, managed the approaches on the east side of this bridge. Also in consequence of the great distance of the lower bridges from the bathing ghat, it was necessary to station Captain Jones of the Punjab Police force there during the great bathing days, which involved his removal from Jowalapore, where his presence might have been required. But had both the bridges above and those below the sacred ghat been actually at the ghat, Major Watson and myself, with an European officer in the Island of Roree, could have managed the bridges easily and more effectually with little, perhaps no addition to the Police force under our orders at the sacred ghat and its approaches: so that the greater portion of the European officers and Police force at the bridges immediately above and below the Hurkepyree ghat would have been available for other localities. From a report on the Coomb Fair of 1855 by the Honorable A. Ross, now a Judge of the High Court, it appears that he clearly foresaw the difficulty here referred to as one result of the opening of the Ganges canal, and he recommends that bridges should be constructed at the sacred ghat. It might consequently perhaps be as well that distinct orders on this question should be issued, as those in office now, and acquainted with the subject, will probably be elsewhere before the occurrence of another large fair. Enclosed is a map of the town of Hurdwar with the Ganges, copied from one prepared by Captain Forbes, R.E., and which shows the position of the bridges during the fair.

5. Your orders of the 13th and 18th March, prepared after a residence of a fortnight at Hurdwar prior to the influx of pilgrims, and after careful inquiry from those capable of giving an opinion on the subject, contain all the information required with reference to our arrangements, which it is not here necessary to recapitulate. The construction of hospitals, furnaces, &c., and clearing the jungles, was carried out by the Tahsildar and his subordinates, superintended by Mr. G. R. C. Williams and Mr. Jones, Civil Engineer, and the extent of this work will be partially understood from Dr. Cutcliffe's report. The sanitary arrangements, so carefully described in Dr. Cutcliffe's report, were entirely under the superintendence of the Police and their European officers. This was by no means a pleasant duty, and the unceasing care and vigilance with which others mentioned by Major Watson performed this duty, was best illustrated by the cleanliness existing to the close of the fair throughout the towns of Hurdwar, Kunkhul, Jowalapore, the island in the Ganges, and all the surrounding country. Dr. Cutcliffe also constantly visited all parts of the fair, and brought to my notice any improvements or alterations he could suggest.

6. The great distinguishing features in connection with the last fair, as contrasted with those preceding it, were that all our arrangements for the safety of the people were much subordinate to the principle that the crowd was invariably to move in one direction, so that no opposing bodies of men could under any condition meet each other; that no carts, elephants or horses were allowed to enter the town of Hurdwar during the great bathing day; that the people, wherever encamped, were forced to submit to the sanitary rules enforced by the Police; and that the processions of the different sects of Fakeers, instead of traversing the town of Hurdwar, should proceed to the bathing place by the Island of Roree, whence after crossing one of the bridges, and bathing, they recrossed at a lower bridge to Roree, and rejoined their elephants, &c.

7. The Police force arrived at Hurdwar shortly after the pilgrims began to make their appearance, and as the fair did not begin to assume large proportions till the 1st of April, this might at first sight have been viewed as a useless waste of strength. Without the Police, however, the place could not possibly have been kept clean, and their early arrival gave the men time to make themselves comfortable, and become thoroughly acquainted with the particular duties assigned to each before rapid locomotion became difficult. This last was of the greatest importance, as with so dense a crowd, any accident would have borne its full results before an European officer, even 50 yards distant, could possibly have come to the spot; and this circumstance alone will indicate how remarkably well the Police must have been instructed in their duties, and the care with which they carried out those instructions. During the great bathing day a large number of the Police, including some Inspectors, remained in the water throughout the day, to prevent accidents, and the gentleness with which they treated the people, frequently intractable from stupidity,

was beyond all praise. The water at Hurdwar is cold in the extreme, and even the Brahmins, stimulated by the prospect of collecting their fees, could not remain in it for any length of time without evidently suffering severely.

8. The people began to assemble at the last fair about the 10th or 12th of March, some of the Fakeers and shop-keepers being the first to make their appearance; but even up to the end of March there was no very large gathering at Hurdwar. Considerable bodies of men and women, however, daily made their appearance from Marwar, or other distant localities, and, after bathing, left at once for their homes, evidently dreading the results of being present when the fair was at its height. These constant visitations of persons, ignorant of the sanitary rules in force, gave the Police unceasing trouble, and required constant attention from their European superiors. From the 1st of April, the encampments on the islands of the Ganges, as also in the country round Hurdwar, Kunkhul and Jowalapore began to assume a more solid appearance, and many thousand Fakeers of different sects took possession of the grounds supposed to belong to each. You visited Hurdwar about this time, remaining there from the 1st to the 5th April, and had an opportunity on the 4th, which was considered a rather sacred day, of seeing the processions of Fakeers managed in connection with a considerable body of bathers. All this was to be sure on a small scale, but it gave the Police, and those engaged in the management of the fair, an opportunity of judging how the arrangements would work, though, as results proved, when the crowds are really dense, those in charge are so utterly helpless in moving about rapidly, that this rehearsal on the 4th intended for the time to induce almost too great a sense of security.

From the 6th or 7th April, vast masses of people gradually encamped in every direction for many miles. On the 7th of April, I forbade all traffic through the town of Hurdwar, and my ever active Assistant, Mr. G. R. C. Williams, fixed the barricades for regulating the advance of the people at the spots originally selected, all the materials having been for some time collected on the ground. We now discovered that the impossibility of moving rapidly amongst the crowd rendered it necessary to depute Mr. G. R. C. Williams to manage the eastern approaches of the No. 3 bridge used by the pilgrims encamped in the Doon, the management of the western approaches having been kindly undertaken by Mr. C. A. Daniell and Mr. G. E. Ward from the Doon. It was also found necessary to remove Captain Jones of the Punjab Police Force from Jowalapore to take charge of the bridges below the sacred ghat, and Mr. C. Donovan, Assistant Magistrate, who had just returned from leave of absence, was sent to Jowalapore. The comparatively gradual increase of the crowd fortunately enabled us to see the necessity for these alterations before the great day, the 12th, and everything passed off on that day in a more satisfactory manner. One woman was unfortunately killed on the Doon road by the accidental falling of one of the heavier beams, and two others died in the Doon hospitals, in consequence of being much crushed in the crowd between the bridges used by the Doon pilgrims. Thus the only accidents occurred in localities almost beyond the limits of where any serious danger was apprehended.

9. Though I attempted to make several calculations on the subject, many confusing elements rendered it impossible to secure any reliable date from which to determine, with any approximation to certainty, the probable number of people present at Hurdwar on the Purbee, or great bathing day, the 12th of April. Dr. Cutcliffe in his report considers that about 2,800,000 persons were permanently encamped near the fair.

10. The rules, which after much consideration it was found necessary to enforce, interdicting the use of horses, elephants, or conveyances of any kind in the town of Hurdwar, though extremely favorable to the poorer classes, frequently became an absolute prohibition to the advent of the better classes of women or children to the chief bathing ghat. It was argued that all might come on elephants, horses, &c., to that part of the Island of Roree situated immediately in front of the ghat, but this is not considered as sacred as the Hurkeypyree itself. Native ladies were consequently obliged to walk in a dense crowd, in an April sun, upwards of a mile, to get to the ghat, which they were doubtless incapable of doing. Those encamped on the Hurdwar side of the river did generally manage to secure rooms for the night within a reasonable distance from the ghat, but those less acquainted with the locality, and who generally encamped on the islands simply could not bathe at the sacred ghat. This seemed a hardship, and as we checked the advance of the people, and granted the privilege of passing to the right bank of the Ganges to hosts of naked Fakeers, we considered it but just to make similar arrangements for the Maharajah of Cashmere, and a few of the Chief Sardars encamped on the islands, if they took advantage of the advent of the processions, which they did.

11. The dangers usually attending any large gathering of men are, at the Coomb Fairs, much increased by the large processions of excited Fakeers. As these processions are accompanied by elephants and horses, the former of which at any rate could not pass the bridges of boats, or ford the stream, we were obliged to alter the character of these processions, as hitherto sanctioned, by not permitting them to pass through the town of Hurdwar. The Mahunts of the Fakeers entered into some spirited religious discussions on this subject, and at one time it appeared to me that the arrangements could not be carried out. When the Fakeers, however, first began to assemble at Hurdwar, after consulting the Brahmins as to the religious character of the

institution, I forbade any Fakeers from appearing in public absolutely naked. All professed to approve of the order till it was enforced, but I then saw that it would be impossible for me to go further, as large parties of Fakeers expected to be allowed to walk in procession, and bathe naked on the Purbee, or great bathing day. The Mahunts, however, did not see my position, so, by granting as a concession a permission we could not have withheld, the Fakeers agreed to surrender their right of passing through, their processions being formed on the island of Roree, where they were managed by Captain Bramley, Mr. Williams, Assistant Magistrate, and Mr. Pocock. The various bridges above and below the ghats were cleared of people as each procession advanced; and no pilgrims were allowed to come again to the sacred ghat till the procession had passed on, the arrangements at the sacred ghat being carried out by Major Watson, Mr. Foster, Inspector Liakut Hossein, and others mentioned in Major Watson's report. The approach to, and the northern corner of this sacred ghat intended for the Doon pilgrims, which had been fenced off to prevent any clashing amongst the two crowds, was managed by Mr. Daniell and Mr. Ward. Throughout these arrangements the Fakeers' processions constituted the chief source of danger, and in fact originated the only accidents that occurred by the check given to the advance of the crowd. But the character of these necessary checks in the advance of the people would have been totally altered had the bridges been opposite, instead of some distance above and below the sacred ghat.

12. At the last Coomb there were five sects of Fakeers, and at the present are six, whose rank of precedence was thus determined:—

1st.—Nirunjunees.	4th.—Oodassees (Burra Akhara).
2nd.—Nirbunees.	5th.—Oodassees (Chota Akhara).
3rd.—Byragees.	6th.—Nirmullah.

The Nirmullah, or last of these sects, have recently been formed by the Rajah of Putteala, and are an intelligent body of men, with an almost military organization, the emblems on whose standards indicate that they are a fanatical class, though they behaved well throughout the fair.

13. The six sects of Fakeers numbered, as far as could be ascertained, about 50,000 men; but independently of these, there were numerous sub-divisions, and men who belonged to no sect. A large number amongst those belonging to the classes of Fakeers possessing precedence at Hurdwar are intelligent men, evidently possessing considerable means, their organization converting them into a formidable body, either for good or evil, while their annual wanderings render them thoroughly acquainted with all that goes on in India. Their leaders, or Mahunts, were courteous, shrewd men of the world, and seem to possess the most absolute control over their men, who never departed from an agreement entered into with me by their Mahunts. It is worthy of remark that amongst this large body of Fakeers assembled at Hurdwar only two men professed to carry out the acts of penance, involving distortions of limbs, etc., once their universal characteristics.

14. The island of Roree, to the east of that branch of the Ganges which runs past Hurdwar, though always fully occupied by encampments during the Hurdwar fairs, had never been so carefully superintended as during the last fair, which was entirely due to the arrangements made by you. Being immediately opposite the great bathing ghat, this island, which is of considerable extent, is much valued as an encamping ground. Before the waste tracts in the Seharunpore district were made over to the Forest Department, this island remained almost totally free of trees or jungle—at any rate of a character that prevented the formation of encampments; and as such I remember it during the fair of 1857. The efforts of the Forest Department have been most successful in covering a large portion of this island with low thick jungle bushes and trees, chiefly thorny, so that after you visited the spot, and marked out the position of the roads, the mere effort of clearing the ground involved considerable labour and loss of time, while the people refused to purchase the wood as firewood, declaring that it was generally of a worthless description. Thus the cost of clearing was not repaid by the sale of the wood, as I had anticipated might be the case; consequently, I would suggest that the Forest Department surrender this island, and the one to the south-east of it, to the Seharunpore District Officers, as the labour of preserving the wood must be lost at each large fair, and it even costs money to remove the wood. Considering the experience derived from our efforts to sell the wood, these islands can be of almost no value to the Forest Department. Should they be made over to the District Officers, they might be thoroughly cleared by merely allowing the people to remove all the wood now remaining, and permitting the cattle of Hurdwar and Kunkhul to graze on them at a certain rate per head. As the ultimate object of this arrangement, I would suggest that, adopting your lines of road, these should be defined by boulders built into a height of three or four inches, so that in future fairs the people would at once see where they were to encamp. On each block of land the rate of rent per square yard might be noted on a board, so that the money could be collected with greater ease and certainty, and with less chance of the people being plundered by persons not authorized to collect rents.

15. One of the greatest difficulties I had to contend with was the collection of workmen, and their retention at Hurdwar, even when receiving more than double their ordinary wages. Not only had roads to be cut through the jungle in the islands, but the digging of the trenches for sanitary purposes required some 600 men, if we could procure them, while the sweepers were

equally numerous. Also I required masons for the furnaces, and carpenters for the numerous large hospitals. Your orders are dated the 13th and 21st March, and though we had to cut in the forests the trees, bamboos, and grass, for the hospitals, and collect, and even get manufactured the other materials, such as axes, spades, etc., and bring them from a distance of 30 or 40 miles, the whole of the work, including the furniture of the hospitals, was ready by the 6th or 7th of April. I brought hundreds of men from all parts of the district, and they were carefully paid by the European Officers every day; notwithstanding which, daily reports were received of a hundred men more or less absconding, when their work was checked till more men could be procured from a distance. Hurdwar being in fact almost in the jungles, the well-to-do pilgrims found it worth offering our men even Rs. 2, or Rs. 3 per diem, to assist them in constructing their encampments, and in such a vast crowd, when a man once escaped from the Police station at which he was posted, he could not again be found. In consequence of the violence of the storms at Hurdwar, after much material had been collected, and one hospital blown away, it was found necessary to alter the character of their construction; and as my men were very properly only allowed to cut particular kinds of wood in the forest, we might not have overcome the difficulty rapidly, had not the Canal Department kindly placed some of their wood at my disposal.

16. Hurdwar is close to the boundary both of the Bijnour and Doon districts, so that the pilgrims attending the fair gradually extend their encampments over small portions of both these districts during large fairs. Shortly after our sanitary rules were working effectually in the country round Hurdwar, we found the necessity of calling in the aid of the officers in charge of neighbouring districts to keep the ground beyond my jurisdiction clean, and this was particularly necessary in the case of the Doon, as at Hurdwar a strong wind always blows at night from the Doon, and thus any impurity there affected the whole fair.

Mr. Palmer, the Collector of Bijnour, encamped on the banks of the Ganges opposite Hurdwar, and Mr. Daniell sent Mr. Ward from Dehra. To these officers I advanced money, with the view of carrying out sanitary arrangements similar to those enforced at Hurdwar, and in a few days the adjoining lands, both in the Doon and Bijnour, were as clear as any portion of Hurdwar, and continued so to the conclusion of the fair.

17. A statement is enclosed, showing the character of the land-rents collected at the last Hurdwar fair, which amounted to Rs. 9,931-14-0. Had I possessed a larger establishment of a trustworthy character, it might perhaps have been possible to collect Rs. 1,000 or Rs. 1,200 more; but as it was, I was obliged to remove Deputy Nundkishore from settlement duties to superintend the collection of rents. The rents were very easily collected from those who arrived a week or more prior to the great bathing day, probably because they were, as a rule, the most wealthy class of traders, etc.; but the late arrivals gave much trouble, frequently evading the assessments by removing from one spot to another. When the encampments extended over so vast and densely crowded a tract, the Deputy Collector was unequal to the task, even when occasionally assisted by Mr. Williams, of doing more than taking each sub-division of the fair in regular rotation, which to be sure offered opportunities for evasion. The owners of the horses at first refused to pay the assessment, while the Police were so hard worked in looking after the conservancy arrangements, and maintaining order, that I found it difficult to secure men to accompany the Deputy Collector and Mr. Williams to enforce the orders. Many of the horse dealers too were Afghans, who asserted, perhaps with truth, that they had spent the whole of their money in the long journey to Hurdwar, and they simply had none with which to pay the rents, but that they would do so when a few of their horses were sold. As the assessment was a novelty for which they were not prepared, and as they threatened to leave in a body for Jowalapore, or some neighbouring town, if the rents were at once levied, this portion of the work was delayed, and thus some doubtless evaded assessment. The chief purchasers of horses are representatives of the various Cavalry Regiments, Police, etc., so that the inconvenience would have been considerable, had the horses been removed to a distance.

Considering that the horse-fair at Hurdwar is the only portion of that fair which is an advantage to the whole community, whatever their religion or race, it might perhaps be worthy of consideration whether it is politic in future to levy an assessment from the horses. The Deputy Collector Nundkishore is entitled to much credit for the manner in which he performed the disagreeable duty of assessing and collecting the rents; for though myself constantly on the spot, only once was a complaint made to me on the subject, and that proved groundless.

18. The long-standing feuds between the Hindoos and Mahomedans of Jowalapore were as usual a cause of anxiety during the Hurdwar fair, as any disturbance at Jowalapore would extend throughout the fair. Lately there had been no overt act threatening an outbreak, so that I was unable to comply with Major Watson's wish to station extra Police there at the cost of the town. It was also an object to induce the two parties to come to terms if possible, and having summoned the leaders of both, they assured me that they would keep the town quiet. Captain Jones of the Punjab Police force, who struck me as being a particularly good Police officer, and who took much interest in Jowalapore, where he was stationed, found both parties anxious to carry out their promise, but as it was necessary to remove Captain Jones to the charge of some of the bridges during the last day of the fair, I thought it as well to ask Captain Ross of the Jat horse to depute some of his men to watch the place and its vicinity on the great bathing day. Mr. Donovan, the Assistant Magistrate, also remaining there with the usual Police force.

19. Though not previously called upon to act, the Jat horse were of valuable assistance to us on the chief bathing day. Two or three days previously a body of some 11,000 or 15,000 Fakeers, not acknowledged by the various sects, regularly frequenting Hurdwar, arrived from Central India, and their Mahants claimed the right of entering the procession as second on the list. This the other sects resisted, and the Mahants, confident apparently in the numbers under their command, refused to come to terms; so I placed them in confinement till the termination of the fair, and their followers were refused the privilege of joining the other processions at all. As, however, so large a body of men might cause much trouble, I asked Captain Ross to detach one portion of his men to watch the processions at Roree, the remainder patrolling Jowalapore and its vicinity. This proved a valuable assistance to the Police, who had orders to deal very severely with this irregular band of Fakeers, should they make their appearance in a disturbing character in other parts of the fair.

20. The management of the fair was much facilitated by the exertion of Captain Forbes, Lieutenant Marindin, and Mr. Jones, Civil Engineer of the Ganges Canal. The first had made all the arrangements for the various bridges of boats, being obliged to leave before the fair commenced, but Lieutenant Marindin equally did all in his power to assist. For instance, when in consequence of the increasing crowd, the boulders on the roadways forming the approaches to the bridges sunk considerably, bringing earth to the surface, which might have formed dangerous quagmires when saturated with water by the pilgrims, the Canal officers and their establishments worked for two nights to remedy the defect, large parties of coolies being placed at their disposal for bringing stones and gravel from the island of Roree; also in regulating the escape of water at Myapore and elsewhere. The Canal officers always willingly did all in their power to assist in making the people comfortable.

21. To the Police was assigned the heaviest and most disagreeable work in connection with the fair. Major Watson in his report has entered fully into the duties performed by those under him, which report, with the accompanying returns, not only illustrates the intelligence and energy imparted into all his arrangements, but also how ably he was supported by the other District Superintendents of Police present at this fair, as also by the Police force. My own remarks specify the work undertaken by the other Government officials present at Hurdwar. But to what department they belonged, no body of men could have worked with more unanimity and hearty good will than was apparent from first to last amongst all, whether Europeans or Natives, who were present at Hurdwar, though undoubtedly there were many disappointments and dis-agreeable duties to perform. All were, however, fully repaid by the successful conclusion of our efforts, particularly when combined with the gratitude the Natives unmistakably evinced whenever they met the European.

22. For more than a month prior to the great bathing day, the food exposed for sale along the lines of road frequented by the pilgrims was carefully examined, and also at the towns near Hurdwar, all inferior grain being seized, so as to prevent injury to the pilgrims from the purchase of bad food. I also made all the Tahsildars over the district bring up large quantities of grain of the best quality to Hurdwar and the surrounding towns, so as to enter into competition with any of an inferior quality, and by this means the price of good flour was kept lower than is usual at ordinary Hurdwar fairs. But unfortunately the poorest class of pilgrims usually cook at home before starting all the food they require for the trip to Hurdwar, which being generally filled with ghee, and other similar substances, becomes most unwholesome after a few days' exposure to an April sun. Thus as the poorest classes do not, as a rule, purchase any food at Hurdwar while they are not possessing the means which would enable them to secure good food when they start, they are beyond the influence of any efforts made on the spot, with the view of giving them wholesome food, and an outbreak of cholera apparently generally commences amongst the poor.

23. Dr. Cutcliffe's report most carefully reviews the subject of sanitary arrangements, and fully enters into the particulars of the outbreak of cholera at the fair. Our arrangements rendered it impossible that real cholera should not at once be reported when it appeared, and the non-existence of this disease at the Hurdwar fair till the 13th of April is undoubted, which originates the inquiry as to how the disease could have taken such deep root amongst the people, when it hardly showed itself before they left Hurdwar. The sanitary arrangements seemed at the time to be perfect, while at former Coombs, by the accounts both of Europeans and Natives, it had hardly been possible to move in any direction in consequence of the filth, no large expenditure on account of sanitary arrangements having been sanctioned; yet at no previous Coomb since 1840 had there been an outbreak of cholera. To those who had labored so long in an April sun and dust, the result was certainly disappointing, as these sanitary arrangements had given the Police more trouble than anything else in connection with the fair. To the state of the Ganges water, the heavy rain which drenched the poorer classes, and other causes, is generally attributed to this outbreak of cholera. But the rich Mahomedans, who would not drink the Ganges water, and were well sheltered, seemed to suffer in proportion to their number as severely as any, and were comparatively none, however, suffered till they had gone a day's march from Hurdwar, generally two or three, so that the poison must have been universally diffused in a very short time, and hardly by contact with only a few original cases of cholera, which appeared at Hurdwar before the people were scattered all over the country, as on the same principle

the 40 or 50 cases of cholera in each of the various towns in this district occurring amongst the pilgrims should have caused a general outbreak, whereas the cholera has died out, or nearly so, with the exception of spots in the Tahsil in Hurdwar.

The Natives being often shrewd observers, I tried to ascertain their views as to the cause of this outbreak.

The Native Hakeems attribute the appearance of cholera to the smoke from the furnaces used for burning the filth from the latrines on boulders. The mass of the people, however, attribute the outbreak to the circumstance that we buried the filth from the latrines in trenches close to their tents. They assert that this answered admirably while the weather continued dry, but that the extremely heavy fall of rain on the night of the 11th saturated these trenches, raising a miasma that affected the whole people.

The system of latrines and trenches will be understood from Dr. Cutcliffe's account, to which arrangements the majority of the Natives much objected, so that they can hardly be viewed as impartial judges. There were many apparently good reasons for adopting the rules suggested by Dr. Cutcliffe, but with the experience of the past before us, it might perhaps be a question whether, on future occasions, it might not be better to remove the contents of the latrines every day to a distance from the mass of the people by employing carts, or boats, or both, constructed for the purpose. The filth was doubtless in the centre of the people at all the previous Coomb fairs, where there was no cholera, which is as apparently usual with this disease, which introduces a contradiction suggesting an inquiry as to whether sanitary arrangements exercise any influence in checking an outbreak of cholera, but previously the filth was left exposed to the dry heat of an April sun, which may perhaps, as remarked by Palgrave and other wanderers in the dry hot climates, rapidly remove all injurious characteristics from the most objectionable substances. We doubtless buried this filth before the sun could reach it, and the accumulation of it, though comparatively harmless before the heavy rain fell, might then, as supposed by the Natives, evolve a steam from the heated ground, which might prove fatally injurious to the people encamped within a few yards from the trenches. Whether this be one of the chief causes or not, however, it might be as well that the experiment be not again attempted, as the accumulation of filth so generally distributed year after year, under the very ground on which the pilgrims encamp, would probably prove injurious to the prospects of preventing future outbreaks of cholera.

24. Being requested by the Bengal Sanitary Commission to ascertain as far as possible particulars regarding former outbreaks of cholera at Hurdwar, I have attempted to do so. No satisfactory information, however, can be secured on this subject from the records in this office, which are in this respect very imperfect. The Hurdwar Brahmins state that a very large number of people were killed or died at the Coomb fairs of 1808 and 1820, but it is impossible from their accounts to distinguish what number were killed, as was evidently the case, by violence or by disease, and if the latter, what was the character of the disease. Cholera broke out when I was in charge of the Hurdwar fair in 1857, but I do not remember the occurrence of heavy rain as in the present year. The disease did not show itself to any extent at Hurdwar, but killed a good many pilgrims on their return home; still the outbreak was in 1857 on a smaller scale than in the present year. Dr. Cutcliffe, who has only recently come to Seharunpore,

"At former fairs, as I have previously shown, when cholera broke out, it destroyed the pilgrims in great numbers at Hurdwar itself."

has apparently been misinformed when entering the remark marginally noted, taken from page 22 of his report, it being amongst Natives notoriously admitted as one of the characteristics of Hurdwar fairs that when cholera breaks out amongst the people, it does so chiefly on their return home from the fair, and not to a large extent in the fair itself.

The Natives assert that though cholera has not shown itself at any Coomb fair since 1820, there has been thrice an outbreak at the smaller fairs between 1820 and 1867, but of none of these outbreaks can I find any record, except that of 1857, previously mentioned. The Honorable A. Ross, now Judge of the High Court, who had been for several years Collector of Seharunpore, writes to me:—"We had no cholera, or any other epidemic, at the Coomb Mela of 1855, nor at any of the other fairs, while I was Collector of Seharunpore, that is, to the best of my recollection. I am certain as to the great fair of 1855. It always struck me as a very fortunate and wonderful thing there should have been no epidemic in such a crowd, exposed as it was to great alterations of weather." The last portion of Mr. Ross' remarks is important, as showing that in 1855, as in 1867, there were great alterations in the weather, which in 1855 did not produce cholera. It seems to be almost certain that there has been no cholera at Hurdwar since 1857. I have been in this district since the commencement of 1863, and have seen or heard of none, though there was a very large fair, the "Mahabarnec," in 1865. As far then as I can ascertain, outbreaks of cholera have occurred at Hurdwar during the annual fairs at an average of about once in ten years since 1820, though never apparently has it been so fatal as in the present year, but on the former occasions it appeared at the smaller fairs, and the deaths in proportion to the number present might have been as great.

25. Early in March, before the commencement of the fair, the Police Chowkeedars and Bukhshees throughout the district had been directed to report at once any cases of cholera, but the district seemed to remain peculiarly free from cholera, while the pilgrims were coming to

Hurdwar, none of whom died on the road. However, when it did actually break out, medicine was distributed in all directions; the sweepers were ordered to clean the ground on which the pilgrims might have encamped, and the dead were ordered to be buried six feet from the surface. There being cholera at Seharunpore, the Civil Surgeon could not leave this place, and the only Native Doctor we could spare was sent out where the disease seemed to show itself most severely. The Police reports cannot be entirely depended upon as to what might have been cholera, but by those reports it appeared that a large number of pilgrims recovered after receiving the medicines distributed over the district for them. Several intelligent Natives have suggested to me that, with a view to check the advance of cholera, one or two simple prescriptions for preparing cholera medicines should be printed in Hindee and Persian on small pieces of paper, and so distributed that there might be one in every house in the country. As far as possible, one or two at any rate of these prescriptions should contain medicines only which are easily procurable in the towns or larger villages. In a general epidemic, such as every six or seven years seems to sweep the districts in Northern India, medicine cannot be distributed in sufficient quantities to reach the whole population, while even those living comparatively close to a Police station or outpost find that before they can secure the medicine, the disease has advanced so far that the remedy is valueless. The people are evidently willing, even the poorest of them, to make their own arrangements for the purchase of medicine, if they only knew what was required.

26. I made an attempt to ascertain from all the neighbouring districts what had been the mortality from cholera up to the 8th May, as the result of the last Hurdwar fair. As yet only two replies have been received, showing 1,120 deaths in the Umballa district, and 426 in Moradabad to the 8th May. Up to the 15th May, there had been 1,265 deaths in the Seharunpore district. Thus in three districts alone there had been up to the dates mentioned 2,811 deaths, so that the total number of deaths caused by cholera originating at Hurdwar could hardly be much under from 8,000 to 10,000, but it might be interesting to ascertain the actual numbers, which could doubtless be easily done through the various District Officers in the North-West and the Punjab.

27. The following is an abstract of the charges incurred during the last Hurdwar fair, and paid from the District Local Funds:—

	RS.	A.	P.
Conservancy, coolies and beldars	4,791	6	8
Do. sweepers	4,503	11	3
Hospitals—cost of building	1,489	5	6
Hospital kahars	775	14	0
Furnaces—cost of construction	426	0	9
Firewood for furnaces	193	1	2
Miscellaneous	1,562	12	6
Flags and flag-staffs	63	15	6
Phowrahs	617	2	4
Rewards paid to vaccinators as per Commissioner's order ..	140	0	0
Paid (May 27th) to Dr. Cutcliffe on account of Hurdwar hospital contingent charges	125	13	2
Total	14,689	2	10

The cost of works completed by the Canal Department was as follows:—

Extension of the bathing ghats, including road from ghat to bridges-of-boats, ramp from Dehra road railing in front of ghat	2,232	0	0
Filling up holes in river in front of ghat and Hurdwar bund	3,098	0	0
Bridges, including hire of boats, etc., etc.; this also includes bridges below Myapore dam, and minor bridges over the nullahs	22,500	0	0
Total	27,830	0	0

The next receipts on account of rents of lands, after deducting cost of collection, was Rs. 9,672-9-6. Not including the expenditure by the Canal Department, the excess expenditure beyond the receipts is Rs. 5,016-9-4.

28. The Hurdwar fair may be viewed as a national institution in North-Western India, all religious parties being interested in it, as Mahomedans, equally with Hindoos, frequent the fair in large numbers to purchase horses, manufacture, etc.

As it was evident that the Seharunpore district could not meet so large a drain on its local funds, you suggested that a portion of the expenditure might probably be met from the Local Funds of other districts. The expenditure incurred by the Canal Officers was the necessary

result of the formation of the Ganges canal; consequently it would appear to be just that this expenditure should be charged to the Local Funds of those districts which benefit by the canal. The other expenditure might apparently with justice be met from the Local Funds of the districts in the Meerut, Agra, and Bareilly Commissionerships, whose residents from the largest proportions of the visitors to Hurdwar.

29. In addition, however, to the above expenditure, Major Watson proposes that the Police should be granted a reward of one month's pay, which they well deserve.

Two statements now forwarded show the number of the Police present at Hurdwar and their pay, so that should this proposal be sanctioned, the charge will amount to Rs. 14,147. The rewards given to the Police in 1865, after the Mahabarne fair, in excess of the rents realized at the fair, were paid from the sum provided in the Budget for meritorious conduct. Should this course be again adopted, our Local Funds would have to meet the whole charge of Rs. 14,689-2-10 on account of conservancy, etc.

Independently of this, however, in accordance with the order of the Inspector General of Police, Nos. 931 to 934, of March 7, 1867, the substitutes of the Chowkeedars employed at the fair have been paid Rs. 2 per mensem from the General Police Fund. A later Police order, No. 1955, of the 6th instant, directs that the Chowkeedars employed at Hurdwar are each to receive a reward of Rs. 2. As, however, the surplus of our Village Chowkeedar Fund is upwards of Rs. 12,000, perhaps some of these rewards might be paid from this fund.

30. The Tahsildar of Nukoor (who had been sent up to Hurdwar as being well acquainted with the place) and three Peishkars had really very hard work in meeting all the requirements of the fair, and might perhaps be granted one month's pay as a reward. Dr. Cutcliffe also wishes that his medical subordinates should receive the same. As Major Watson was obliged to leave the district rather hurriedly, in consequence of ill health, I have as yet been unable to close the accounts in connection with the expenditure on account of this fair, but as soon as some trifling discrepancies have been cleared up, the accounts will be forwarded to you.

A SANITARY REPORT ON THE GREAT HURDWAR FAIR OF 1867.

BY ASSISTANT SURGEON H. C. CUTCLIFFE, F.R.C.S.

I.—Sanitation.

Physical characters of the ground occupied by the pilgrims.—The sacred bathing ghât to which the Hindoo pilgrims resorted during the Comb-ka-Mela of 1867 was at Hurdwar, a Native town situated on the banks of the Ganges in latitude 29° 57', and longitude 78° 15', and at an elevation of about 1,000 feet above the level of the sea.

The vast concourse of people present at the fair was located in the valley of the Ganges for a length of above nine miles, and a breadth of from two to six miles from above the bund at Dooda past Hurdwar and Myapore, to below the towns of Kunkhul and Jowalapore.

The valley of the Ganges, from where the river escapes from the Himalaya mountains at Rikikase (about 13 miles above Hurdwar) to a distance of several miles below Hurdwar, consists of a deep stratum of gravel and boulders intermixed with limestones of various sorts.

The boulders become smaller in size as the distance from the hills increases until, at about 17 miles below Hurdwar, they are lost in a stratum of sand and silt.

These boulder strata are generally, in the higher levels, covered with lighter alluvial deposit and mould, and clothed with vegetation.

The direction of this valley is nearly north-east and south-west.

The town of Hurdwar is situated in the gorge of the Sewalik hills, through which the river Ganges flows.

These hills are of tertiary formation, and are composed of massive strata of grey sand-stone, covered in parts with a superstructure either of clay, or of loose boulder gravel.

The low flat mounds on either side of the river bounding the funnel-like opening from the gorge into the Doon, are formed of a superstructure of clay, resting on another stratum of boulders, or of conglomerate rock.

From Hurdwar up to Rikikase, this valley is surrounded by dense, uncleared tree forests, with heavy brushwood and rank grasses, and in it, here and there, are large and deep swamps; and it so teems with malaria, that even the Natives can with impunity reside in it only from the month of December to the beginning of the rainy season.

In the valley below Hurdwar, though there is less jungle, there is much malaria.

At and below Hurdwar, the level of a considerable part of this valley is so low that much of it is overflowed during the rains. The sub-soil water, percolating from the river, is at no time more than a few feet below the surface of the low ground.

Prevailing winds.—Through this funnel-like gorge at Hurdwar blows at night with great force the cold wind, locally known as the *Dadoo*, from off the snowy regions of the Himalayas, down to the heated plains below. The direction of this night-wind is steadily from north-east to south-west.

In April, it commenced to blow about 9 p.m. and ceased at about 10 a.m. By day the current of fair is chiefly upwards towards the hills. In this locality, typhoons are of very frequent occurrence at this season of the year.

The daily mean temperature from the 7th to the 14th of April was 76°. A meteorological return is appended.

Probable numbers present.—With a desire to obtain, if possible, certain data on which to form some sort of estimate of the probable number of people present at the fair, I succeeded, by the obliging assistance of two very intelligent Europeans, in having three different spaces in the encampments on Rorez marked out, and their superficial area accurately measured. Between 7 and 8 p.m., on the evening of the 9th of April, the population of these measured spaces was carefully taken with the following results:—

Feet.	Population.
No. 1.—150 by 78. Ground thinly encamped on	225
No. 2.—200 by 300 „ thickly „	1,185
No. 3.—350 by 300 „ moderately „	800
Total .. 700 by 678	Total .. 2,210

The sum of the measurements, and the sum of the population, would represent something like an average of population to space. We may say, then, that an average space of 700 by 678 feet, or 474,600 square feet, or 52,733 square yards, contained a population of 2,210 people. Now, since 52,733 square yards contained 2,210 people, 3,097,600 square yards, or one square mile, should contain 129,818 people. The entire length of the encamping ground was nine miles; and should contain 1,168,362 people. I think that the mean breadth may be taken at three miles. This would give 27 square miles of encampment. Now, if we deduct from the 27 square miles about one-fourth or fifth for ground which was not occupied, we may assume that the remainder, or say 22 square miles, represent the amount of ground actually encamped on. These numbers will not, I think, be considered excessive by any one who was familiar, as of course, I was, with the whole of the encampment.

Now if for one square mile we have 129,818 people, for 22 square miles we shall have 2,855,966 people; and this figure probably represents the number of people actually present at the fair.

The encampment (a map of Encampment is appended).—The whole encampment was divided by the river, the land, and by pre-existing roads, into sections, through each of which longitudinal streets of from 50 to 100 feet in breadth ran nearly in the direction of the prevailing winds, and were intersected, at intervals, by transverse and smaller streets. The whole ground was thus mapped out into sections, and sub-divided into blocks, which were separated from one another by streets that served as channels of air and prevented overcrowding, and afforded complete ventilation to the entire camp. Arranged in order within the blocks, the pilgrims sheltered themselves in neat and most picturesque-looking grass huts.

Drinking water.—Since to drink the sacred waters of the Ganges was as much an object of the pilgrims as to bathe in its stream, sanitary efforts on this subject could alone be directed, with any possible use, to an endeavour to prevent contamination of the river, along the banks of which patrols of Police were kept up from Rikikase downwards, and the throwing into it of dead bodies was everywhere strictly prohibited.

The conservancy arrangements further assisted in preventing the pollution of the water.

Food.—By the precautions of the Magistrate, the Bunneahs were deterred from adulterating their flour, which, of good quality, could be abundantly obtained.

Precaution against the importation of infectious diseases.—Orders were issued by the Commissioner to the Magistrates and the Police Officers in stations around Hurdwar to arrest all small-pox and cholera patients, and to prevent them from getting into the fair. Strict orders were also given to the Police at the fair to seize all small-pox and cholera patients, and to send them, with their families, to the hospital set apart for them.

A very close scrutiny of the pilgrims was kept up by the Police. About the 25th of March they found some four cases, which they thought were cholera, and duly reported them as such. My attention was drawn to them by the Magistrate or Seharunpore, and I got them taken to hospital, and found that they were not cases of cholera. Though the nature of the diseases had

been mistaken, the incident well illustrates the attention of the Police to the orders on the subject now under remark. A system of visiting the patients in their huts was also kept up by a staff of medical subordinates detailed for this special duty.

2. *Conservancy.*—A conservancy system was enforced by rules which were based chiefly on the following principles:—

1st.—That the principle of dry-earth conservancy should be everywhere adopted.
2nd.—That all filth, from whatever sources, should be as quickly as possible disposed of either by—

- (a) Burying it in trenches, or
- (b) Burning it in furnaces, *i.e.*, by rapid combustion.

3rd.—That decently-screened latrines should be provided in situations convenient to the people.

4th.—That no latrine or trench should on any account be made on ground which, at any time, could form any part of a water-course; and

5th.—That dead bodies of animals should be speedily buried in graves of six feet deep, in ground selected with similar restrictions.

Public latrines (a sketch is appended).—For the convenience of the people, a latrine, with roads leading to it, was constructed in, or adjacent to, each of the blocks of the encampment. The size of the latrine depended on the nature of the ground, and on the number of people who were expected to use it. An ordinary latrine occupied a piece of ground 60 yards long by 20 yards broad. It was surrounded by a screen-fence six feet high, for the construction of which various materials were tried; but the most efficient, and probably the most economical of all screens, proved to be a thatch screen or *chupper* supported by bamboos. The latrine was divided into two parts, by a partition wall so situated as to allot two-thirds of the entire length of the latrine for men, and one-third for women; and each division was provided with a separate and screened entrance.

Trench latrines.—Where the nature of the ground admitted it, the latrines for the two sexes were erected apart from one another. Nearly all the latrines were situated on an earth soil, or on such an admixture of earth and sand, as admitted the digging of transverse trenches one foot broad and four feet deep.

(a) *Trench latrines.*—Two such trenches, with an interspace of two feet, were dug at a time, and the earth which was thrown up in forming them was stored for future use on one edge of each trench.

Having squatted himself with one foot on either side of the trench, and having thrown in a handful of earth before leaving, the visitor himself reduced the labour of the attendants to a minimum, and left nothing objectionable either to his neighbour or his successor.

(b) *Sand latrines.*—But in certain few and exceptional cases, it was absolutely necessary to provide latrines on sand and boulders, where the trench system could not be worked. In these latrines, having removed the stones, earth was thrown down to absorb fluids, and to deodorize the filth, which, having been covered with earth, was carried to the furnaces either by the sweepers, or by donkeys or mules, which returned again to the latrine laden with dry earth.

Private latrines.—In the compounds of the houses of private individuals, and within private enclosures, private latrines were permitted to be erected; but their owners were held responsible that the conservancy rules were strictly obeyed. These latrines were for the most part worked on the principles of the sand latrines, *i.e.*, without trenches. Private individuals were permitted to erect private screens or partitions within the enclosures of any of the public latrines. Tatties, or private latrines, other than those now mentioned, were strictly prohibited.

Conservancy staff.—For each ordinary single latrine, when completed, two sweepers and two diggers sufficed. For each sand latrine six sweepers, besides the conveyors of the filth, were required. There were about nine latrines to each Police chowkee, and over these nine latrines and their attendants was appointed a Jemadar sweeper, who was made to understand the very simple conservancy rules, and was held responsible that they were carried out by all the sweepers under him.

The Head Policeman at each chowkee enforced these rules under the orders of the Police Officer of the section. I had under me a Deputy Sanitary Officer, Mr. Garden, Inspector of Police, who, with indefatigable zeal, kept under his inspection the conservancy arrangements of the whole encampment, which I myself superintended.

Furnaces (plan appended).—To ensure rapid combustion, and thereby to diminish as much as possible the bad smells which result from the burning of filth, four furnaces were erected. Two of these were built in nullahs running up directly from the town of Hurdwar, and served for the combustion of all the filth deposited in and about the town. The other two were on the island on the opposite side of the river. They were so situated that the smoke from none of them could blow over the people. These furnaces were erected by Mr. Jones of the Canal Department, who,

by his most kind and obliging assistance, rendered valuable aid in many cases of difficulty. A charge of wood was first thrown into the furnace, and then the filth was piled on with, now and then, a small amount of fresh fuel, so as to support combustion.

A plan of these furnaces is appended.

Enforcing the Conservancy Rules.—The burden of enforcing the conservancy rules fell on the Police; and it is to the unremitting exertions, the most cordial co-operation and kindly aid afforded me on all occasions by the Civil authorities, and by Major Watson in charge of the Police, and by the Police Officers acting under him, that the simple system of conservancy, which I have briefly sketched, sufficed to make clean the three dirty Native cities of Hurdwar, Kunkhul, and Jowalapore, and to maintain in cleanliness, and in freedom from bad smells, a collection of Natives computed at about three millions.

3. *Hospital arrangements.*—Hospitals were required in different parts.

Dehra Section.—In the Dehra section, a hospital, capable of accommodating 20 patients, was erected, and was taken charge of by Dr. Richardson, Civil Assistant Surgeon of Dehra, on the 28th March.

Bijnour Section.—In the Bijnour section another hospital of similar size was erected, and was taken charge of by Dr. Gardner, Civil Assistant Surgeon of Bijnour, on the 3rd March. These two hospitals were supplied with medical subordinates and medical stores by the medical officers in charge, to whom I am much indebted for their valuable assistance. Appended are the reports of these medical officers.

The Island of Rorree.—On the island opposite Hurdwar, and immediately facing the bathing ghât, was erected a dispensary; and on a high bank commanding a constant current of air, at the south end of this island, No. 2 Hospital, capable of containing 50 patients, was erected.

Myapore.—On the opposite side, near the Myapore bungalow, and on the high spoil bank of the Canal, was erected Hospital No. 1.

Hurdwar.—In the Police lines in Hurdwar, a hospital for the accommodation of 20 patients was erected.

Kunkhul.—At Kunkhul, a small dispensary was provided.

A hospital, capable of containing 25 patients, was erected at Jowalapore, adjacent to the Seharunpore Branch Dispensary there situated.

Hospitals for infectious and contagious diseases.—Between Myapore and Jowalapore, on a large piece of ground admirably secluded by rows of bamboos, and bounded on one side by the canal, was erected hospital No. 3, for infectious and contagious diseases, capable of containing 60 patients.

The ground taken up for this hospital afforded ample space for the separate huts of those private individuals who choose to erect them at their own expense.

The whole space was cordoned by Police, who themselves were not allowed to come within 40 yards of the hospital.

In the Dehra section, another Hospital, for infectious and contagious diseases, was erected.

Construction of the Hospitals.—A uniform plan was adopted for the erection of all the hospitals, which were constructed of thatch work or chupper, supported by strong and firmly-set beams and poles, capable of resisting the powerful night-winds, or even the typhoons which were to be expected. These thatch buildings were 20 feet broad, six feet in the upright sides, and 13 feet high to the top of the pent roof. In length, they varied in accordance with the nature of the ground; but no building was anywhere constructed to contain more than 30 patients. As many of these separate buildings as were required were erected in echelon at 20 yards' interval from one another, and were so disposed with regard to the direction of the prevailing winds, that air blew transversely through each building, and in no case from one to another building. The sides of these buildings were provided, at intervals of 12 feet, with openings four feet in breadth, which could be closed by doors, so as to regulate the admission of air into the building. Within the building a central pathway of six feet in breadth was marked out, and the beds were regularly arranged on either side.

Under each bed, a layer of dry fresh earth was strewed. At one end of a building a small space was enclosed for a dispensary. At the other end a portion of the building was divided off by a thatch screen for a female hospital. One of these buildings, 100 feet in length, contained 19,000 cubic feet of space, and was intended for 25 patients, each of which would have had about 750 cubic feet of space. Materials were stored in readiness to increase the hospital accommodations, should more than was already provided have at any time been required.

Medical stores and Hospital furniture.—Europe medicines, sanctioned by the Inspector General of Hospitals, were obtained from the Umbella Medical Depot. Native medicines, which were chiefly used, were obtained through the Magistrate from local sources. Surgical instruments and appliances were temporarily supplied from the medical stores at Seharunpore. A barrel of carbolic acid for the use of the hospitals was obtained from the Meerut Jail, and proved to be of

very great service as a most efficient deodorizer, and as a repeller of flies, which, wherever it was used, were invariably very greatly diminished in number. Beds, blankets, and all requisite hospital furniture, as well as food for in-door patients, were supplied by the orders of the Magistrate.

Medical Subordinates.—Four Native Doctors and four Compounders were detached from Seharunpore. Three Native Doctors were sent from Roorkee. Twenty vaccinators were sent from the Kumaon and Meerut divisions.

Water supply.—Filters of sand and charcoal were provided for the hospitals, which for the most part obtained good drinking water from adjacent wells.

Doolies.—For the conveyance of sick, or injured persons, common Native beds, provided at both ends with cross sticks, by which they were suspended on a pole, were distributed, with their bearers, to every Police chowkee, to the dispensaries and hospitals, and to spots adjacent to the sacred bathing ghat.

A *doolie* that had conveyed a patient with a contagious disease to Hospital No. 3 was there detained, and the carrying poles having been removed, the bed was used for the patient to lie on in hospital.

Disposal of dead bodies.—The dead bodies from the General Hospitals were removed to the Hindoo sacred burning ghat at Kunkhul, and were there burned. But a special burning ghat, supplied with stores of dry wood, was provided for the bodies taken from the contagious diseases' hospital, and arrangements were made with the Brahmins for the satisfaction of the religious scruples of the family of the deceased. A Native Medical subordinate had to attend the burning of the bodies, and to see that they were thoroughly consumed by fire.

4. *Medical history of Hurdwar Fair.*—An ordinary and regular fair is annually held at Hurdwar on the 11th of April. Every twelfth year there is a Coomb, which is the largest of all the fairs, and every sixth year a Coombhee, which is smaller than a Coomb. Certain other annual fairs are held, of which "Dusserah" occurs in June; "Sheorathree and Hoollee" in March; "Dewalee and Watgee" in November and December; "Lorhee" in December; and "Manumawash" in October or November. But besides these regular festivals, large extraordinary fairs called Mahabarnee and Barnee take place on the occasions of solar or lunar eclipses, provided that they occur with certain conjunctions of stars, and within, what is considered to be, a propitious period. The numbers attending these ordinary and extraordinary fairs vary from 100,000 to 3,000,000.

It is said that in 1783 an epidemic of cholera destroyed 20,000 people at Hurdwar in eight days. The Pundits seem only to know that a great mortality occurred at that year's fair—the eighth Coomb from the one now just past. In 1819, the Pundits state that a plague occurred at the Hurdwar fair, and destroyed a vast number of people; and that it was in 1827 that they first knew of cholera at Hurdwar. In the fair of 1829, when the Gosains (Fakeers), after struggling and fighting for a forward place, came down the steps of the sacred ghat to bathe, it is said that a hot blast of wind blew on them, and that in an instant all who were present at the ghat fell dead. The belief is that an offended deity thus punished these Fakeers for their presumptive sin in daring to take precedence of more worthy pilgrims. But the mortality was subsequently very great in the encampment. I am informed by a Native Doctor, who was present at the fair of 1857, that cholera then again made its appearance. From 1857 to 1867 cholera does not seem to have occurred at Hurdwar. But as I was only appointed to Seharunpore in March last, I have no personal knowledge of former fairs, and my statements concerning them are based on what information I have been able to obtain from intelligent and respectable Pundits, and other Natives of Hurdwar and Seharunpore. I can find no records to refer to.

Reported my arrival on March 12th.—In obedience to orders received from the Commissioner of the Division, I proceeded to Hurdwar, and assumed charge of the sanitary duties of the fair on the 12th March.

Arrival and departure of Pilgrims.—In the end of March, many thousands of pilgrims came to Hurdwar, and, after remaining a few days, departed again. From the 1st of April, the people began to arrive in vast numbers from the plains, and to settle themselves down in the blocks laid out for them. On the 3rd of April, the fair may be said to have commenced, though dense living streams stretching backwards for very long distances into the plains, and with a volume steadily increasing up to the auspicious bathing hour of 12 noon on the 12th of April, continued to concentrate themselves on Hurdwar, and to pour out their multitudes on the encamping grounds. But from that hour, in the vast surging mass, a new direction of current was observable; for the Hindoos, as soon as they had bathed, began to depart, and the roads which before the bathing hour had been so crowded with people pressing in towards Hurdwar, were now again choked with pilgrims returning to their homes. The rapidity with which the throng dispersed is inconceivable. Dr. Richardson reports that on the afternoon of the 13th, there were not 300 people remaining in the Dehra section. By the same time the Bijour section was empty; and on the morning of the 15th the entire ground, so lately covered by the encampments, was a bare plain again.

Accidents.—One could not fail to remark in the crowd the large proportion of decrepid old people tottering along, supported by their faith and by their hope of being made eternally happy by a death at the sacred ghat. The number of infants in arms was likewise very great. It is to the most admirable and complete arrangements of streets, and the perfect subjection of the crowd to a systematic and orderly direction, that the almost total absence of accidents is due.

Medical Returns.—The total number of deaths from accidents was five, and of these, two were killed by lightning. Of small-pox, 14 cases were detected and sent into hospital, where 3 died and 11 recovered. The total number of sick treated in the General Hospitals was 544, of which 16 died and 528 recovered, and 16 were remaining.

The total number of out-patients treated at the hospital was 823. The prevailing sickness was malarious fever, of which 238 cases were treated. The number of diarrhoea and dysentery cases treated in all amounted to 180. Dr. Richardson states in his report that no case of cholera or of small-pox occurred in the Dehra section up to the 14th; and Dr. Gardner's returns show a similar absence of either of these diseases in the Bijour section up to the same date. Dr. Kendall, in medical charge of a detachment of the 14th Bengal Cavalry stationed below Kunkhul, states that a case of a sporadic cholera occurred in a grass-cutter of his Regiment on the night of the 9th of April. Under treatment, this man speedily recovered, and no other case occurred in the Regiment at Hurdwar. Of all the hospitals and dispensaries at Hurdwar, the medical returns show an absence of the disease up to the 13th of April.

The inference from the Medical Returns is, that the whole encampment was remarkably free from sickness; and my own constant observation, and that of the other medical officers, confirm this inference. It was a palpable fact, observed by all who were much in the crowd, that the pilgrims looked remarkably healthy, cheerful and happy; and that whenever they saw a European, they never ceased vociferating their grateful praises of the Government that had been so kindly thoughtful in providing for their safety and comfort.

Information relating to the outbreak of cholera.—In March, the temperature had been unusually high, till a storm or two with rain cooled the air, and the weather then remained fine and pleasant up to the 11th of April, which was a cloudy close day, with the usual wind blowing upwards to the hills till the afternoon, when a heavy storm of thunder and very vivid lightning, coming from the west, broke over Hurdwar, where two men were killed by the electric fluid, and the four others were severely burned. Heavy rain fell, and continued all night. The 12th was the great day for bathing, and the pilgrims, who had been wet for 12 hours, began, before the dawn of day, to stream off in thousands to the sacred ghat. The rain still continued to fall, though now only lightly; nor did it cease till the evening, when, just before sunset, the clouds broke, and the sun for a short time came out. But the pilgrims had been out for 24 hours, and after bathing and drinking the much polluted water at the ghat, a vast number must have waited in a state of fatigue till the sun came out, ere they could have got any dry clothes on their bodies. On the following day, April 13th, 8 cases of cholera were sent to hospital.

Specific diseases.—For the existence of a specific disease, whether it be small-pox, scarlet fever, hooping cough, or cholera, the presence of its own specific poison is necessary. Whether the specific poison or agent of cholera was present amongst the crowd or not before the occurrence of the disease, there is no proof.

We are only made aware of the presence of this most subtle element by the effects that it produces on the human body.

Presence of the specific poison.—Since the specific disease, cholera, occurred at Hurdwar, the specific poison or agent of the disease must have been either—

- 1st.—Spontaneously generated; or
- 2nd.—Have pre-existed on the spot; or
- 3rd.—Have been imported there.

1st.—The hypothesis of the spontaneous origin of the agent of a specific disease is as untenable as is that of the spontaneous generation of an animal.

2nd.—A supposition of the existence of the cholera poison at Hurdwar must rest on the fact that the disease has, several times, shown itself there at former fairs. But cholera has not been endemic at Hurdwar; nor has it occurred, so far as I can ascertain, for the last ten successive fairs. This, however, does not prove the absence of the poison; for certain known, and probably many unsuspected conditions, are necessary to its development.

How long this poison of cholera may remain dormant we know not. It has shown itself in old camping grounds that have been deserted for weeks and months; and it has been conveyed in a dormant state over great distances for as long a period of time. But facts had not demonstrated the effects of time in modifying or destroying the cholera element.

3rd.—That the specific agent of cholera can be conveyed by people passing from an infected district is a well-known fact. Now cholera occurred at the Agra Durbar in November, and it prevailed as an epidemic at Benares and in Rajpootana, at or about the time of the Hurdwar fair, and since pilgrims came from these places, it is probable that they conveyed with them the cholera poison or agent to Hurdwar.

Cholera amongst pilgrims at Hurdwar was slight.—But though cholera commenced in the vast crowd at Hurdwar, it made almost no progress amongst the people until they had dispersed. The total number of cholera patients admitted into the hospital at Hurdwar up to the evening of the 15th was 19; and the total number of deaths 11. By the evening of the 15th, the pilgrims had all departed; and it was when they had left Hurdwar, and were beyond all sanitary control, that the disease began to spread amongst them. At former fairs, as I have previously shown, when cholera broke out, it destroyed the pilgrims in great numbers at Hurdwar itself, and since the laws which the disease observes in relation to crowds are known to be everywhere alike, we may be sure that it would, this year, have produced a terrible havoc in so vast and dense a multitude as were present at the Coomb, had it not been for the very complete arrangements that opposed both its outbreak and its diffusion.

It is clear that hygiene is the greatest antagonist that we can as yet oppose to cholera; that improve water and bad food are its great supporters; that diarrhoea and general debility, whether produced by exposure and over-fatigue, or from whatever source, are the chief pre-disposing causes of its attack; and the disease is capable of communicating itself through the medium of the excreta, and especially of the feces, to others fit to receive it. But though we have given the cholera poison or agent, and the conditions which establish for it a radius fit for its development, we yet seem to require the right season for its maintenance as an epidemic.

The favorite season for the diffusion of cholera as an epidemic appears to be in England, autumn; in Russia and in France, winter; in Bengal, the early spring; and in the North-Western Provinces, the rainy season.

It was after the rain of the 11th and 12th of April that the epidemic of cholera commenced at Hurdwar.

The pilgrims, after leaving Hurdwar, conveyed with them, as their subsequent history shows the cholera poison; they underwent great fatigue and exposure during their long marches; and as fresh parties came on, they had to pass along roads, and to encamp on grounds strewn with the evacuations of those, who, suffering from the disease in various degrees, had preceded them.

These appear to be, chiefly, the circumstances which permitted the disease to propagate itself amongst the pilgrims after they had left Hurdwar.

That cholera (as I shall presently show) did not spread itself widely as an epidemic amongst those who were in circumstances other than those of the pilgrims, may be due to the season having been unfavourable to the general diffusion of the disease, and its maintenance as an epidemic.

Precautionary warning.—On the occurrence of the epidemic on the 13th, I reported the circumstance to the Magistrate of Seharunpore, and I telegraphed to the principal Medical Officers of Lahore, Umballa, Delhi, Bareilly, Roorkee, Meerut, Agra and Allahabad, and I wrote to Dehra, warning all that several cases of cholera had occurred amongst the pilgrims at Hurdwar.

Treatment.—The well-known cholera pills were distributed to all the Police chowkees, and to all the medical subordinates employed in looking for cases amongst the crowd; and I doubt not that these pills did much good, when they were given in the stages of the disease preceding collapse. In hospital, anti-spasmodics, cordials and opium, were given in the early stages. When collapse came on, ammonia and stimulants were prescribed. The cases sent to Hospital No. 3 were nearly all, on their arrival, in a moribund state. On the whole, it appears that the type of the epidemic in this district has not been a very fatal one, and that, in the early stages, the disease has been very amenable to treatment of no extraordinary nature whatever.

All due precautions were of course taken in burying the evacuations with all speed and burning the clothes of the dead, and in boiling those of the patients who were discharged cured, and in attending to all the familiar details of precautionary measures against the spread of the disease from the hospital.

On the evening of the 15th, the pilgrims having deserted Hurdwar, I, with the concurrence of the Magistrate, made medical arrangements both at the Jowalapore and at No. 3 Hospital for the continuance of medical relief, and started for Seharunpore, where cholera and the pilgrims had arrived before me. The country was empty of pilgrims until I came near Roorkee, when I got up to the rear of the retreating crowd. I reached Seharunpore on the 16th, and found that the Joint Magistrate had taken the precaution of preventing the pilgrims from coming into the station, by turning them off the main road, and sending them round towards their destination by a circuitous route.

Date of arrival of pilgrims and cholera at Seharunpore.—On the 13th, a case of cholera occurred at Bhugwanpore, 23 miles from Hurdwar. By the evening of the 14th, the pilgrims had begun to arrive at Seharunpore, distant 38 miles from Hurdwar, and 14 cases were treated from the Seharunpore Dispensary. On the 15th 27 cases, on the 16th 26 cases, and on the 17th 14 cases were treated from the Seharunpore Dispensary.

Cholera imported by the pilgrims, and confined chiefly to those who had been at Hurdwar.—The mortuary return of cholera cases, and the cholera map of Seharunpore, which are appended, show at a glance the progress of the disease in this district.

The Natives state that, excepting those who were at Hurdwar, comparatively very few people have anywhere suffered from cholera in the Seharunpore district. In no single instance has a case of cholera been reported to me from any town or village out of the line of march of the pilgrims. The cholera cases, which first occurred at the places marked on the cholera map, were confined, so far as I can discover, to those who had been present at Hurdwar; and in these places, the pilgrims and the disease appeared for the most part simultaneously.

Stage of incubation.—It was on the 17th of April, that is, four days after the arrival of the pilgrims at Seharunpore, that cholera is known to have first attacked any individual in the town who had not been to Hurdwar.

On the fourth day (17th April), after the arrival of the pilgrims, the Sub-Assistant Surgeon attended two cholera patients who had not been to Hurdwar, and on the fifth day, 18th April, two cases.

Precautions at the Jail.—A chupper hospital for cholera cases was erected outside the Jail; and prisoners from Hurdwar were detained four days before they were admitted into the Jail itself. No case of cholera occurred in the Jail.

Mortality from cholera in the Seharunpore district.—From the returns supplied to me through the Magistrates and the Police Office, together with the mortuary returns from the hospitals, it appears that 1,265 fatal cases of cholera have occurred up to the 15th of May in the Seharunpore district.

Subsidence of the disease.—No fresh admissions of cholera patients to the Hurdwar Hospital occurred after the 1st of May; it was free of cholera cases, and closed on the 12th of May. The last case admitted into the Seharunpore Cholera Hospital was on the — of May; it was free of cases, and closed on the 14th of May.

From the reports that reach me, I am led to believe that the disease has now nearly ceased in the whole district of Seharunpore.

5. *Measures to prevent the spread of cholera.*—Having been called upon by the Sanitary Commissioners for Bengal to state what measures I would recommend, with a view to prevent the spread of cholera in India, I beg to append the following remarks:—

1st.—Generally, it appears to me that the spread of cholera can be best prevented by a rigorous system of sanitation, which can be thoroughly effected only by the general diffusion throughout the masses, both European and Native, of a knowledge of the laws of hygiene.

Though the idea of a perfect knowledge of, and complete obedience to, the fixed and unalterable laws of health, with eradication of disease as a consequence, is utopian, we may yet reasonably expect that a practical application of the progressive science of hygiene will, by a process of exclusion, enable us eventually so to narrow the circumstances of cholera, as to bring the disease completely within our understanding, if not entirely within our ability to cure.

2nd.—As regards fairs particularly, so far as local measures for the fairs are concerned, I can suggest nothing better than the arrangements that were this year made for the pilgrims at Hurdwar. But assuming that these fairs cannot be prevented, I would, with great respect, be allowed to suggest—

1. That Natives should be prohibited from setting out for these fairs from any place in which cholera or small-pox is known to be epidemic.

2. That through every district, lines of march, avoiding towns and cantonments, should be marked out for pilgrims, and that halting places, at proper distances from one another, should be selected. Each halting place should be laid out as an encampment, on the plan of the Hurdwar encampment of this year, modified to suit the special circumstances of any particular case.

3. That in the event of an outbreak of an epidemic disease occurring at any halting place, the people of the encampment should be detained, under medical treatment, in an isolated place, till the disease had ceased, and be then turned back by another road and sent to their homes.

4. No individual affected with small-pox or cholera should be allowed to proceed forwards. He should be detained in hospital until cured, and be then sent back to his home.

5. That railroads should form no exception to these rules. At each terminus, pilgrims' encamping grounds might be laid out.

6. For pilgrims returning from Hurdwar, similar arrangements to those before described should be made.

7. It appeared that amongst the pilgrims at Hurdwar this year there were a great number of very wealthy people, and that in point of fact the proportion of actual paupers was very small; and I most respectfully submit that it would not be unreasonable to expect those who attend these fairs to contribute to a Pilgrims' Fund, or in some way to provide from amongst themselves means for the adoption of such sanitary measures as may be thought necessary, not only to protect their own lives, but to prevent the lives of others being placed in danger.

ROHILKUND DIVISION.

Bijnour.—The disease broke out in the form of a virulent epidemic on the 13th April, and did not disappear till the 7th June. The total number of persons attacked, recovered, and died during the entire period of the prevalence of the scourge is shown in the margin. The doubtful

Attacked	2,201
Recovered	1,055
Died	1,031
Doubtful	105

cases are said to be of persons, who, after obtaining medicine, were taken away by their friends, and consequently their result is unknown.

On the appearance of the outbreak, Cholera Hospitals, with proper medical establishments, were opened at Nujeebabad, Nugeena, Chandpore, Dhampore, Bijnour, Keeruthpore, and Mundawur. Cholera pills, with directions for use, were also distributed to all Police stations and headmen of villages. Every person attacked was carried to one of the hospitals for treatment, and all communication between these institutions and the towns was strictly prevented. Excrementitious matter at hospitals was systematically burnt, and complete cremation of corpses, clothes and beddings of the dead was promptly enforced. The bodies of Mahomedan victims found burial in cemeteries outside the towns. Health Officers were appointed in all towns to see the above measures fully carried out. The Municipalities and the Police of the various towns also assisted in enforcing sanitary regulations, which were published for general information, and the people were given to understand that wilful contravention of these rules would be dealt with as an offence punishable under section 269 of the Penal Code. Sulphate of iron was used as a disinfectant.

Special rules were framed for the treatment of *pardah-nusheen* women at their own houses, care being taken to interdict all intercourse between the houses of the patients and their neighbours.

Dr. Gardner's answers to the questions of the Sanitary Commission are as follows:—

I.—The appearance and disappearance of the epidemic is given above.

II.—At the commencement the disease was certainly confined to pilgrims, but communicated itself to others afterwards.

III.—There is no doubt that the infection was communicated by pilgrims.

IV.—The period of incubation was not more than eight days.

V and VI.—The measures adopted are detailed above, and are said to have met with a very fair success.

The Magistrate quotes the case of a village called Bissahut, in Pergunnah Daranuggur, where the people contracted the disease by using for personal ablution the water of a tank in which tainted clothes had been washed, but the spread of the disease was effectually checked by promptly prohibiting access to the pond, and throwing large quantities of sulphate of iron in the water.

Moradabad.—Measures similar to those in Bijnour were adopted here, and arrangements made for passing the pilgrims outside the cantonment and the city. Cholera Hospitals and posts for distribution of cholera pills and medicines, at intervals of two miles along the road leading from Bijnour, were established. Medicine was also deposited for distribution in various parts of the city. The Magistrate is of opinion that the disease was communicated by pilgrims, as not a case had occurred previous to their arrival in the district.

Bareilly.—On the approach of the disease, Cholera Hospitals were established at Meerungj, Futtebgunj, and Khuleelpore, on the road leading from Moradabad, and arrangements were also made, passing the pilgrims outside the city and cantonments. Cholera medicines, with

From 15th April to 12th May.			
Admissions.	Deaths.	Pilgrims.	Non-pilgrims.
1,257	178	899	345

directions for use, were sent to all Police posts and to the Mohallas in the city, and the headmen of the villages in the parts of the country affected were also provided with medicine. His Highness the Nawab of Rampore moved the dispensary from the town to the road running from Moradabad to Bareilly, and supplied the Police posts on the road with medicine. There was thus an unbroken line of posts where cholera medicines could be obtained, and patients treated on the whole length of the road from Hurdwar to Bareilly, by which pilgrims returning to Oudh travelled.

Turrai.—The total number of people attacked, recovered and died, is marginally given. Out

Attacked	1,113
Died	596
Recovered	517
	1,113

this line of road entirely escaped the contagion, which leaves no reason to doubt that the attack originated with Hurdwar pilgrims. It commenced in Pergunnah Bazpore about the 5th April, in Pergunnah Roadpore about 11th April, and Pergunnahs Gudderpore and Kilpoora about the 20th April. The former were the dates on which pilgrims passed through to the fair, and the

of the 596 victims, 34 only were Hurdwar pilgrims. The highest rates of mortality prevailed in Pergunnah Gudderpore, and is accounted for by the fact that the main line of road to Hurdwar runs through it, and the villages are situated close to the road; those far away from

latter the date on which they commenced returning. From this it would appear that the pilgrims on their road to the fair were the cause of a slight attack at first, and the returns show that this attack was rapidly disappearing when the return of the pilgrims caused it to break out afresh on all sides. The following measures were adopted:—Halting places, isolated from villages, were appointed for pilgrims, who were all prohibited from entering into villages. Cholera pills and chlorodyne were freely distributed. The villages attacked were divided into circles, and put under control of Jemadars, whose duty it was to see to the immediate burial or burning of the bodies, and to report daily the progress of the disease. Bazars and fairs were discouraged, and the sale of unripe vegetables and doubtful meats prohibited. Two Native Doctors, and as many Compounders, were sent from Bareilly. Three elephants were supplied by the Nawab of Rampore to assist the Tahsildars in visiting the villages situated in the interior of the jungle for a time. The disease is said to have been kept down very much by these precautionary and preventive measures.

Question I.—The appearance and disappearance of the disease in the different districts is given as follows:—

	Appeared.	Disappeared.
Bijnour	15th April	11th June.
Moradabad	15th April	12th May.
Bareilly	18th April	27th May.
Turrai	23rd April	10th June.

But it is to be observed that the disease made its appearance in the Turrai on the 5th April among pilgrims going to Hurdwar.

Question II.—The disease appeared among the pilgrims returning from Hurdwar, and afterwards communicated itself to others.

Question III.—The contagion was communicated by pilgrims, as is shown by the fact that the disease was almost entirely confined to the lines of road along which they travelled, and to places to which people who had been to the fair returned. The Commissioner, however, adds that there was at the time a peculiar state of atmosphere which seemed to render people liable to infection, and this was peculiarly noticeable whenever an easterly wind prevailed.

Question IV.—The period of incubation of the disease cannot be ascertained.

Questions V and VI.—In addition to the measures adopted, as given above, care was taken invariably to bury or burn immediately the bodies of the victims, and to ensure that their clothes were also reduced to ashes. Undoubted success is said to have attended these measures.

ALLAHABAD DIVISION.

Futtehpore.—Instructions were issued by the Magistrate to persuade pilgrims, if they appear in large numbers on the Grand Trunk Road, to proceed by rail to Allahabad, and that if they failed to do so, to refuse them admittance into serais, and provide them with supplies outside the serai walls. Very few pilgrims were, however, seen on this road, and these were almost invariably alone, or travelling with their families. The number of patients admitted in hospital from the commencement of the year was very small, and only 12 deaths from cholera have been recorded throughout the district.

Cannpore.—One Mahajun of the city arrived by rail and died on the platform. Out of three boat-loads of pilgrims coming down the canal only three were attacked, and two with fatal effect. A tent was pitched near the Railway station, and all the necessary medical aid provided. With the exception of these few cases, nothing further was heard of the disease in this district.

Allahabad.—A cholera camp was formed near the new Scotch Kirk for the use of the passengers by railway who might be attacked, but happily there were no patients, and the district is generally very healthy. Four cases of cholera occurred in the city.

It is reported that an epidemic broke out in two villages across the Jumna—Barra, where 16 persons were carried off in 48 hours, and Ghoorpore (between Barra and Allahabad), where 11 persons fell victims in one night. The distance is 7 miles between these villages. The Magistrate was supplied with two Native Doctors, and it is stated that Mr. Kaye will use his influence on the residents of villages attacked to leave their homes for some days, and encamp in neighbouring groves. On the whole, the general health of the division is reported to be very good. During the month of June, cholera was very prevalent in some parts of the Banda district, but its commencement could not be traced to the pilgrims from Hurdwar.

BENARES DIVISION.

Benares.—In one part of the city, Bengalee Tola, cholera began to be alarmingly prevalent. From the 10th to the 25th April, out of 282 persons attacked, 124 succumbed to the scourge. After this, rapid improvement succeeded. The following measures were adopted:—Cholera pills, with directions for use in the vernacular, were immediately and freely distributed. A small quantity of liquid mixture, composed of camphor and spirits of wine (said to have proved very

efficacious in the treatment of this disease in Europe last year,) was also dispensed, and a good stock of it ready prepared was kept on hand at Dr. Lazarus' shop. Hospitals, with proper medical staff, were opened outside the city for the treatment of sick pilgrims or travellers arriving by rail and by road, where they were received, and not allowed to enter the city. Numerous other hospitals were also in operation in the city itself, and an extra Native Doctor was located in Bengalee Tola, the seat of the disease. Special regard was also had to the conservancy of the town, and although it was impossible to clean the drains thoroughly at this season of the year, large quantities of lime were used as a disinfectant, with apparent good result.

In the beginning of the month of May, a great number of pilgrims passed through Benares, but, as a rule, they came from the eastward, and the outbreak of cholera at Hurdwar did not affect the inhabitants of Benares. The Commissioner is of opinion that the disease caught at Hurdwar would already have resulted either in death or recovery before those attacked could reach Benares. It is asserted that the accounts given in some of the newspapers of the epidemic were grossly exaggerated.

Mirzapore.—All necessary precautions were taken to meet the evil, but happily the disease did not assume an epidemic form. A few sporadic cases only occurred.

Ghazepore.—Here also scattered cases appeared, but no epidemic. Among the other measures for checking the spread of the malady, the sanitation of the city, and the prohibition against the exposure for sale of unwholesome fruits and vegetables in the markets, were enforced with success. No great influx of pilgrims was anticipated, as very few people of the district went to the fair.

Azimgarh.—Precautionary measures were adopted, but no epidemic visited the district. Cholera made its appearance in two villages only, but disappeared on the prompt supply of medicines.

Goruckpore.—No bodies of pilgrims passed through Goruckpore from Hurdwar, and consequently no special preventive measures were adopted. To the north of the district cholera is said to have done some damage during the last two months. Pills have been distributed to the people.

Bustee.—Here also the disease broke out with some severity in the northern parts of the district. Its appearance is ascribed by the Magistrate to the contagion caught by the people from the camp-followers of Maharajah Jung Bahadoor, whose camp was attacked on its return from the plains in February. In other parts of the district the disease is not general, but shows itself for a few days in scattered localities, without any apparent cause, and then disappears. Medicine has been freely distributed with success, and sanitation is attended to. There was no such crowds of pilgrims as to render any special precaution necessary.

KUMAON DIVISION.

Gurhwal.—Proclamations were issued, advising the people not to go to Hurdwar, as accounts were received of the prevalence of cholera at that place. Very few people went in consequence; and those that did go, were given to understand that they would not be allowed to return through the forests. In Gurhwal 71 cases were reported, of which 61 proved fatal. These nearly all occurred in a few villages which sent pilgrims to Hurdwar.

Kumaon.—The number of pilgrims is estimated at about 5,000, but the exact number of deaths cannot be ascertained. The pilgrims returned from Hurdwar through Bijour by Kasheepore. The epidemic broke out at Amsote, the first march from Hurdwar, and many died there. Every day many perished, and in one halting place on the banks of the Ramgunga, there were seven deaths out of 150. Correct information regarding these pilgrims from their leaving Hurdwar to the time of their reaching home cannot be given, as they tried to conceal the fact of their having had cholera among them, and passed on very rapidly, leaving their sick to die, and their dying and dead to be buried. Those dying during the halt were thrown into the jungles.

While the cholera was carrying off 40 and 50 a day, travellers appeared to pass with impunity. Very few from the Bhabur went to Hurdwar; and of 307 who died, about 30 only were pilgrims.

The disease is said to have been communicated by pilgrims, as it broke out as soon as they returned from the fair, and has continued spreading since.

The Commissioner cannot give any correct information as regards the period of incubation, because some may have caught the infection at Hurdwar, and imported it to others on the way. Colonel Ramsay quotes one instance in which a woman from Hurdwar communicated the disease 12 days after her return from the fair, and without suffering herself.

As far as keeping pilgrims from passing through the forests and the high roads, the precautions taken were successful, because there was no cholera in the Gurhwal forests; but when the pilgrims came to Kumaon there was no remedy. Had they been prevented coming up, they would have starved in the forests. All therefore that could be done was to distribute medicine, and take care of the sick. At the Huldwanee dispensary 102 patients were treated, and at the Kaleedoongee institution 72.

The Commissioner adds that, in 1862, Hurdwar pilgrims brought the cholera back with them, and it spread exactly the same way as it has done this year, till the rains set in, when it disappeared. Colonel Ramsay is of opinion that large gatherings like the Hurdwar fair should be prohibited. The hill people are fully sensible of the wisdom of the order which prohibited their going, and he thinks that, if the reasons were clearly explained, people would generally abide by the advice.

On the 21st June, a further report was received from the Officiating Commissioner, Mr. Carmichael, announcing the disappearance of the disease entirely from the Bhabur and the vicinity of Nynce Tal.

The Commissioner of Jhansie has reported that very few pilgrims proceeded to Hurdwar from his division, and that no cases of cholera resulted from their return.

From the Under Secretary to Government, North-Western Provinces, Public Works (Irrigation Branch) Department, to the Secretary to Government, North-Western Provinces, Public Works Department, General Branch (Docket No. 386½I.), dated 23rd May 1867.

The undersigned is directed to forward copy of a Report by the Officiating Executive Engineer, Northern Division Ganges Canal, describing the work done by the Canal Department in preparation for, and during the Hurdwar fair of 1867, and of the orders passed by Government in this Department on the same, it being understood that Secretary, General Branch, is drawing up a Report on the Fair.

2. The total expenditure incurred by the Canal Department amounts to Rs. 27,830, and the undersigned is instructed to request that the opinion of the Commissioner, Meerut Division, and of the Secretary, General Branch, Public Works Department, may be taken as to the proportion of the cost of the work done to be borne by the Canal Department and by the Local Funds, respectively. Rupees 2,232 were expended on terraces in extension of the sacred ghat, which may be considered as a permanent commencement of the addition to the ghat desired by the Commissioner of Meerut. This sum, it is presumed, should be paid from Local Funds. Rupees 3,098 were spent on filling up holes in, and reducing the depth of, the river in front of the ghats; and Rs. 22,500 were expended on the ten bridges made to facilitate the passage of the vast number of bathers; and of this latter sum, it is suggested that half might well be borne by the Local Funds.

J. H. DYAS, Lieut.-Colonel, R.E.,
Under Secy. to Govt., N.-W.P., P.W.D.

(COPIES.)

REPORT ON THE WORK DONE BY THE CANAL DEPARTMENT DURING THE LATE FAIR AT HURDWAR.

I. Works for the extension of the bathing ghats.—Terraces raised about two feet above the surface of the water were made on both the up-stream and down-stream sides of the sacred ghat. These terraces were for the purpose of providing convenient roadways away from the ghat. These terraces were from 15 to 19 feet in width, and 485 feet in length. They were composed of crib-boxes tied together with *bullas*, and filled in with boulders. There were used on this work 91 crib-boxes, each 10' x 5' x 5', and 39,000 cubic feet of boulders, which had to be brought from the other side of the river. Wooden ramps, provided with strong railings, were made leading up from the water to these terraces. Parallel to the terraces, at a distance of about 30 feet, a strong railing of crib-boxes connected by *bullas* was made in the river, to prevent the bathers from being pushed out into deep water. The top of the railing was so constructed as to serve for a pathway, on which the Police could walk up and down, and control the crowd. In order to keep the crowd from the Doon from coming into collision with that from the sacred ghat, a branch railing was made connecting the above railing with the northern corner of the sacred ghat. The total length of railings was 640 feet, and 40 crib-boxes filled with 4,000 cubic feet of boulders were used in making these.

A ramp was made, leading from the Dehra Doon road down on to the terrace set apart for the Doon people to bathe from; it was 120 feet long and 18 feet broad, and was provided with the strong side-railings. Soon after the people began to bathe in any numbers, it was found that the roads leading away from the sacred ghat to the bridges-of-boats were getting into such a state of slush as to be dangerous, and at Major Watson's request men were put on at night to cut down pebbles and make a firm road. The first night that this was done, both Mr. Jones, Assistant Engineer, and Serjeant Bruce, sat up the whole night superintending, and by the morning a good road, 400 feet long and 30 feet wide, had been made. The crowd that passed along this road was so enormous, that what was thrown down one night was quite consolidated, and in many places trodden into holes by the next; consequently every day, from the 7th to the 12th April, pebbles had to be collected ready to throw down at night. About 25,000 cubic feet of pebbles were dug out and carried about 400 feet for this work.

The total cost of the above works for the extension of the ghat and making roads was Rs. 2,232. Work was commenced on the 22nd January, and carried on at intervals till the 12th April.

II. Filling up holes in the river-bed in front of the bathing place.—In front of the sacred ghat and the Hurdwar bund boulders were thrown in till the water was reduced to an uniform depth of $2\frac{1}{2}$ feet, for a width of 30 feet, the effect of which was to give a roadway leading away from the ghat about 45 feet in width; for numbers of people, instead of getting out on the terrace, waded along in the water till they came to the broad road leading away from the terrace. Ninety-eight thousand three hundred and fourteen cubic feet of boulders were used on this work, *viz.*, 54,457 at the sacred ghat, and 43,857 at the Hurdwar bund. At the former place, the boulders had to be carried for a distance of from 900 feet to 1 mile, and at the latter from 800 to 900 feet. A railing of ropes tied to stakes were stretched along in the water in front of the Hurdwar bund, to prevent people from getting into deep water. The total cost of reducing the depth of water at the two bathing places was Rs. 3,098, and work was going on from 3rd February to the 8th April.

III. Bridges-of-boats.—There were 10 bridges-of-boats, *viz.*, four for carrying the crowd away from the ghat to the island, and six for carrying them off the island again. The bridges were constructed as follows:—A 6-inch coir rope was stretched across the river about 100 feet above the site of the bridge, and supported on either bank on a strong tripod, each end being lashed to two standards buried 5 feet in the ground. Each boat was fastened to the coir rope by two long Bhabur or Moonj ropes. From most of the boats, two other ropes were stretched to stakes driven in the bank, or, where the stream was not too strong, to crates filled with stones and placed in the river. A chain passing from shore to shore, fastened to standards buried 5 feet, and securely tied in several places to the thwarts of each boat, completed the fastening of the bridge. The superstructure consisted of three rows of *bullas* stretching from boat to boat, and tied to the thwarts in several places across these tors, or in some bridges, sleepers were laid touching one another. Over these came a thick layer of grass, covered with stable litter well watered and beaten. The boats were placed touching each other, and as every longitudinal *tulla* stretched over, and was tied to two boats, the whole structure was so stiff that there was hardly any sway when the thickest crowd was going over the bridge. The roadways of the bridges were 12 feet and 10 feet in width, according to the length of the tors. They were furnished with strong side-rails stayed to the thwarts of the boats. The landing piers for the bridges were made of crib-boxes filled with boulders. The lengths of the bridges were as follow:—

No.	1 Bridge, 225 feet long with	9 Boats.
" 2	120	5
" 3	380	19
" 4	150	10
" 5	150	11
" 6	160	12
" 7	145	10
" 8	150	11
" 9	230	16
" 10	210	15
Total ..	1,920	118

31 crib-boxes and 42,900 cubic feet of boulders we used in the landing piers. No. 4 Bridge was first made at a site selected by the Commissioner as most convenient, but when the bridge was completed, it was found that being on the top of a very strong rapid, it was as predicted by Captain Forbes, hardly safe; so it was removed further down. A bridge, 110 feet in length, composed of crib-boxes connected by *bullas* was made across the escape channel below the Myapore dam, and was of great use in passing carts over to the island. On the 7th, a sudden flood coming down the Ganges, a larger quantity of water had to be passed through the dam than the bridge could well stand, and at the same time one of the boys got choked up with some loads of bhoosa, which had fallen into the stream above the bridge. A great scour took place, and one of the piers sank to such an extent that the bridge became unsafe, and traffic was stopped for some hours. The bridge was repaired during the night, and traffic was re-admitted next morning. This bridge was subjected to a very severe trial, as besides a constant string of heavy carts crossing over to the island, men and cattle were allowed to come in the opposite direction, causing frequent blocks on the bridge. However happily no accident occurred. Three small bridges, from 20 to 40 feet in length, were made across some nullahs on the roads leading away from the ghats. On these, and on the bridge below the Myapore dam, nine crib-boxes and 4,650 cubic feet of boulders were used. A boatman was kept in every boat to bale it out and look after the ropes, and a strong party of *beldars* was placed at each end of every bridge in case of accidents. The dung on the roadways was removed as often as possible, but owing to the crowd, night was the only time that any work could be done, and so the roadways got rather slushy by the end of the fair. The boats used in the bridges were paid for at the rate of one rupee and 12 annas a day each while in the bridges,

besides what had to be paid for bringing them up. The first bridge-of-boats was commenced on the 25th February, and the last was completed on the 16th March, and they were all broken up by about the 18th April. The total cost of all the bridges, including hire of boats, maintenance, &c., &c., was about Rs. 22,500.

IV. Total cost.—The total cost of the works was:—

	RS.
Extension of ghats, &c.	2,232
Filling up holes in river-bed in front of ghats	3,098
Bridges	22,500
Total ..	27,830

In these works, every request of the Commissioner and Civil authorities was scrupulously carried out, and in consequence the expense has been very much greater than it ever was before. The terraces made in extension of the ghat can easily be made permanent by a covering of cut stone, and they may, therefore, be considered as a commencement of the addition to the ghat, so much desired by the Commissioner. The whole of the sum of Rs. 2,232 should, therefore, be paid out of the Local Funds. The bridges-of-boats too being on a much more extensive scale than the last Coomb fair, it is certainly not fair that their whole cost should be borne by the canal, and it is hoped that the Commissioner may be asked to contribute at least half. In this fair, as was evident from the openly expressed gratitude of the crowd, not merely the safety, but the comfort of the people was provided for; and it seems hard that the canal should have to pay for this.

V. General Remarks.—There was great difficulty in the regulation of the canal supply during the fair, as roads crowded with pilgrims crossed below the escapes at Myapore and Dhunowrie. On Sunday, the 7th April, the gauge rose suddenly at Roorkee bridge from 8.00 to 8.50 feet, and before I could use the Dhunowrie escape, the whole crowd had to be turned on to the canal bank at Mahewar, and passed over the Rutmoo above the dam. I sent orders to break the Neeldhara bund, but a still heavier flood came down the Ganges. On Monday morning, and it was not till Wednesday, that the bund was broken sufficiently to reduce the supply to the proper point, and in the meantime, for a portion of each day, the roads below the Myapore and Dhunowrie dams were rendered difficult for foot-passengers and unsafe for carts. Every effort was, however, made to keep the roads open for a part of each day by letting a larger supply than usual go down the canal for six or seven hours at a time. Two women were carried off their legs while crossing below the Myapore dam, and while Serjeant Bruce and the Canal *beldars* were engaged in saving one, the other, unperceived by them, was swept under the bridge, and drowned before she could be got out. There was a report that a blind man was drowned at one of the bridges-of-boats, but I believe it was not true. The boatmen and Canal establishment were unremitting in their endeavours to save people from drowning; they had to be constantly on the look-out to prevent those who were carried away while bathing in the rapids from being swept under the bridges. Eleven men were thus saved from almost certain death, and except the woman above-mentioned, not a life was lost, though it was no easy matter to catch a man, and pull him out in such a stream as there was rushing through the bridges. The following men were particularly active in saving life, and it is hoped that some notice may be taken of their services in this respect:—

Jamal	Head Boatman.	Jummah	Boatman.
Poonee	Tindal.	Seetah	do.
Gheesa	Boatman.	Thakoor	do.
Doorgah	do.	Sadukh Ali	Mohurrir.

A rough calculation, based on the number of men who could cross the bridges per minute, gives about 860,000 as the number who bathed at the sacred ghat on the 12th. Major Watson, however, says that some 5,000 per hour never crossed the bridges at all, and this would raise the numbers to 920,000, the whole of which enormous number of people passed by without a single accident.

The greatest credit is due to Serjeant Bruce for the manner in which he carried out the work entrusted to him. He, and the establishment under him, were at work every night for more than a week, and every order I gave was promptly and cheerfully executed. Sub-Overseer Moolla, a week, and every order I gave was promptly and cheerfully executed. Sub-Overseer Moolla, though an old man, was particularly active and zealous, and it is mainly due to his exertion and influence with the *beldars* that so much work was got through at night. Ramdial, Moonshee, and Sadukh Ali, Mohurrir, I would also bring to notice for their exertions in getting together workmen at the shortest notice for any emergency. I have to thank Mr. T. Jones, Assistant Engineer, for the very great assistance he rendered me in looking after important works before my arrival at Hurdwar. His services were voluntarily rendered, as he was employed on other works for the remodelling at the time. My thanks are also due to Major Watson, and the Officers of the

Police, for the courtesy and readiness with which they complied with any request I had to make them. I ought to have mentioned before that, with the exception of a few alterations, the whole of the arrangements for the fair were made by Captain Forbes before he left to go to Madras.

P. S. MARINDIN, Lieut., R.E.,
Officiating Executive Engineer.

From the Under Secretary to Government, North-Western Provinces, Public Works (Irrigation Branch) Department, to the Superintending Engineer, 1st Circle, Irrigation Works, (Memo. No. 3981), dated 28th May 1867.

With reference to his demi-official note of the 17th instant, forwarding a Report by the Officiating Executive Engineer, Northern Division Ganges Canal, on the work done by the Canal Department in preparation for, and during the Hurdwar fair of 1867, the total expenditure on which amounts to Rs. 27,830, the undersigned is directed by His Honour the Lieutenant-Governor to intimate that the Officers of the Department are deserving of the highest praise, and that the Government is under great obligation to them for their able and successful arrangements. All concerned have earned the marked approbation of the Government for their zealous and unremitting exertions, and for the admirable spirit which has animated them.

2. His Honour further desires that the special thanks of the Government may be conveyed to Captain Forbes who planned, and to Lieutenant Marindin who so ably carried out, the arrangement; and likewise to Mr. Jones and Serjeant Bruce, for their zealous aid and exertions.

3. As a mark of the approbation of Government of the excellent conduct of the Native subordinates, and others named in the report, and for their exertions upon the works, and in the preservation of life, His Honour has been pleased to direct that an honorary certificate, and a donation equal to one month's pay, may be awarded to them.

4. The original report of the Officiating Executive Engineer, Northern Division Ganges Canal, is herewith returned.

J. H. DYAS, Lieut.-Col., R.E.,
Under Secy. to Govt., N.-W.P., I.B.

From R. SIMSON, Esq., Secretary to Government, North-Western Provinces, to the Under Secretary to Government, North-Western Provinces, Public Works (Irrigation Branch) Department, dated Nynce Tal, 18th July 1867, No. 2380-A.

With reference to the papers forwarded with your No. 386½ I., of the 23rd May last, I am desired to state, that out of the sum of Rs. 2,7830, expended by the Canal Department at Hurdwar and its vicinity during the late fair, the sums of Rs. 2232 expended on terraces, and Rs. 3,098 spent in filling up holes, and reducing the depth of the river, will be defrayed from Local Funds.

2. As regards the sum (Rs. 22,500) spent on the construction of ten bridges made to facilitate the passage of the bathers, the Lieutenant Governor is of opinion that, looking to the fact that those for whose benefit the expense was incurred came from all parts of India, it may justly be deemed Imperial in its character. The expenditure may, therefore, legitimately be defrayed from Canal Revenue, but not, the Lieutenant Governor conceives, to be made a charge against the canals.

3. This opinion has been recorded in a Resolution, a copy of which will be forwarded to the Government of India; and it is suggested that application be made to that Government, in the Public Works Department, for sanction to the charge of the above sum, as therein indicated.

RESOLUTION—No. 2372-A.

GENERAL DEPARTMENT.

Dated Nynce Tal, 18th July 1867.

Read the following * papers:—

* *Vide* preceding numbers commencing from Proceedings, 23rd February, No. 146.

1. To Commissioner of Meerut, No. 400-A., dated 19th February 1867.

Papers already printed—*Vide* Police Proceedings for March 1867, pages 118 to 121.

- From Inspector-General of Police, No. 10-B., dated 15th February 1867.
- To Secretary to Government of India, Military Department, No. 89-A., dated 16th February.
- To Secretary to Government, Punjab, No. 90 A., dated 16th February.
- From Secretary to Government of India, Military Department, No. 3, dated 1st March.
- From Secretary to Government of Punjab, dated 1st March.
- From Inspector-General of Police, No. 1954, dated 6th May.
- From District Superintendent of Police, Seharunpore, No. 97, dated 20th April.
- To Inspector-General of Police, No. 395-A., dated 31st May.
- From Secretary to Government of India, Home Department, No. 253, dated 15th May.
- To Secretary to Government of India, Home Department, No. 1843-A., dated 4th June.
- From Commissioner of Meerut, No. 171, dated 26th June, with enclosures.
- Commissioner's Memorandum of Instructions, dated 13th March.
- Commissioner's Memorandum, proposing the appointment of a Sanitary Officer.
- From Magistrate and Collector of Seharunpore, No. 102, dated 27th May 1867.
- Sanitary Report from Doctor Cutcliffe.
- Precis showing prevalence of Cholera, consequent on return of pilgrims from Hurdwar.
- From Under Secretary to Government, Irrigation Department, North-Western Provinces, No. 386½ I., dated 23rd May.

The papers noted above relate to the fair which took place at Hurdwar on the the Ganges in April last.

2. There had been considerable anxiety in regard to this fair.

3. It was one of the Coomb fairs which take place only every twelfth year, and a much larger concourse of pilgrims than usual was therefore expected. It was known also that cholera had shown itself in November at Agra, Meerut, and elsewhere, and that it had continued to hang about the foot of the hills during the whole of the cold season.

4. It was, therefore, considered necessary not only to carry out systematic arrangements for the comfort and welfare of the unusually large body of pilgrims expected to assemble at Hurdwar, but to adopt special precautionary measures to guard against any outbreak of epidemic disease.

5. The Commissioner, Mr. Williams, the Magistrate of Seharunpore and the Doon, and the Major Watson, had, it was known, special experience in the management of these fairs, and the skill of Mr. Cutcliffe in sanitary matters was greatly relied on. All additional aid which it was in the power of the Government to afford from the vaccination and other departments, and by the help readily afforded by the Punjab Government in the matter of Police, was freely given.

6. The reports of the Commissioner, of Mr. H. D. Robertson, and of Major Watson, and the Sanitary Memorandum drawn up by Mr. Cutcliffe, show in detail the highly satisfactory manner in which the wishes of the Government were carried out by the earnest and devoted exertions of all the officers who were present on the occasion.

7. It may here be briefly noted that the whole of the ground at Hurdwar and in its neighbourhood was cleared and laid out in regular encampments; that an esplanade and ten bridges over the Ganges were constructed by the Canal Department; and that order and regularity in approaching and departing from the bathing ghat were enforced by the Police, whose good conduct and general efficiency were conspicuous.

8. The sanitary and conservancy arrangements under the direction of Mr. Cutcliffe, ably seconded by Mr. Palmer and Dr. Gardner on the Bijnour, and Mr. C. A. Daniell and Doctor Richardson on the Doon side of the encampment, were also very complete and successful. Sweepers were told off to every encampment, and the dry earth system of sewage was, as a rule, enforced.

In some places where the ground was stony, furnaces were used to consume the filth. Dispensaries and hospitals for contagious diseases were also constructed, and every attention paid to the sick and infirm.

9. The labors of the Government Officers were greatly lightened by the readiness and alacrity with which the people generally obeyed the orders given to them; and the good example shown by the Native Chiefs who attended the fair (among whom Rajah Shumshere Prakash Sirmoor is particularly named) in cheerfully conforming to prescribed regulations, is deserving of special notice.

10. It is believed that the fair which is just over is the largest which has ever been held at Hurdwar, the number of persons present at the great day of the fair (the 12th of April) being computed at not less than 2,855,000.

11. The absence of all serious crime, the general healthiness of the people up to the last day of the fair, the gratitude and satisfaction loudly and constantly expressed by them, and the fact that only one unavoidable accident, involving the loss of three lives, took place during the fair, abundantly prove the efficiency and completeness of the arrangements made for the comfort and well-being of the people.

12. That unhappily, notwithstanding all precautions, there should have been an outbreak of cholera, which although slight at Hurdwar, appears to have gathered strength as the stream of pilgrims receded from the fair, is greatly to be deplored; but no preventive measures, which human foresight and skill could devise, seem to have been omitted in the endeavour to avert the visitation, or to afford relief and aid to the sufferers from the disease.

13. To prevent such assemblages altogether, without causing a dangerous feeling of popular resentment, seems in the present state of the people of India impracticable; and all that can be hoped for is, that Local Officers should impress upon the people in their districts generally the risk incurred by pilgrimage to Hurdwar, and more especially the evil of the custom common in Rohilkund, of carrying with them supplies of cooked food for their support during the entire period of their absence from home, and the adoption of such precautionary and sanitary measures as may seem best calculated to reduce the evil to a minimum.

14. To this end the appointment of a special Sanitary Officer, for the general supervision of these Provinces, which has already been advocated on other and separate considerations, appears to be highly desirable. The proposals made by this Government in letter, No. 292A, of the 24th January 1866, to the Secretary to the Government of India, in the Home Department, are still, in the Lieutenant-Governor's judgment, the best that can be adopted for this purpose, and the subject will again be pressed upon the attention of the Government of India.

15. The expenditure which has been incurred on this occasion is moderate in amount, and looking to the fact that those for whose benefit it was incurred came from all parts of India, many of them from Foreign States, it may justly be deemed Imperial in its character. The portion, therefore, which it is proposed shall be defrayed from Canal Revenue, may legitimately be provided from that source; but not, the Lieutenant Governor conceives, to be made a charge against the canals. The Government of India will be requested to sanction this arrangement.

16. The Police charges might similarly be provided for from general funds, and if there is any surplus from the Budget provision at the close of the year, the amount will be so applied with the sanction of the Government of India; meanwhile the charges may be paid from the General Police Fund. The Chowkeedars may for the present be paid as proposed from the surplus Municipal cess; but as they in fact acted as a reinforcement of the Police, the charge should be met if possible, like other Police charges, from the Budget provision. The rewards to the Tahsildar and Peishkar of Nukoor, and to Mr. Cutcliffe's medical subordinates, as suggested in Mr. Robertson's report, paragraph 30, are also sanctioned.

17. The proposal of the Commissioner to assess the remaining charges rateably on surrounding districts, and to defray them from Local Funds, appear to be fair, and are approved.

18. The valuable and well-directed aid afforded by Mr. Palmer, the Magistrate, Major M. Thomson, District Superintendent of Police, and Dr. Gardner from Bijnour, and by Mr. C. A. Daniell, Mr. Ward, and Dr. Richardson from the Dhoon, and the services of Messrs. Donovan and Williams of Seharunpore, have been noticed with approval. The officers noted on the margin are also specially brought to notice in the several reports as deserving of commendation; and the Lieutenant-Governor desires to record his high appreciation of their zeal and energy. To Mr. Williams, the Commissioner, Messrs. H. D. Robertson and Cutcliffe, and Major Watson, his thanks are pre-eminently due, as well for their skilful and indefatigable exertions, as for their interesting reports.

(By Order, etc.)

R. SIMSON,
Secy. to Govt., N.W.P.

No. 2373A.

Ordered that a copy of this Resolution be forwarded to the Commissioner of Meerut for information, and for communication to the officers concerned.

No. 2374A.

Ordered, further, that a copy be forwarded to the Secretary to the Government of India, in the Home Department, for the information of His Excellency the Governor in Council.

Nos. 2375 and 2376A.

Ordered, also, that copies be sent to the Secretaries to this Government, in the Public Works and Irrigation Branch Departments, for information.

No. 2377A.

Ordered that a copy be sent to the Accountant-General.

From R. SIMSON, Esq., Secretary to Government, North-Western Provinces, to the Secretary to the Government of India, Home Department, dated Nynsee Tal, 18th July 1867, No. 2378A.

With reference to your letter No. 253, of the 15th May last, and in continuation of my Commissioner of Meerut's Report, No. 171, dated 26th June 1867, No. 1843A, of the 4th ultimo, I am directed to forward, for the information of His Excellency the Governor-General in Council, copies of the papers noted on the margin.

2. The arrangements which were made for maintaining order and security for life and property at the late Hurdwar fair, and the success which attended them, are fully narrated in the reports of the Commissioner of Meerut, and the Magistrate and District Superintendent of Police of the Seharunpore District.

3. Mr. Cutcliffe's report describes the conservancy and sanitary arrangements, and treats of the outbreak of cholera on the last day of the fair. The accompanying précis, which has been drawn up in this office, shows the manner in which cholera was spread through many of the districts of these provinces by the returning pilgrims, and the measures which were adopted for checking its progress, and affording aid to those seized by the disease. Similar information as respects the Meerut Division will be found in paragraphs 113 to 135 of Mr. Williams' report.

From R. SIMSON, Esq., Secretary to Government, North-Western Provinces, to the Secretary to the Government of India, Home Department, dated 18th July 1867, No. 2379A.

I am directed to call the attention of His Excellency the Governor-General in Council to the proposal made by this Government in my letter No. 292A, of the 24th January last, for the appointment of a Sanitary officer for the North-Western Provinces, with a suitable establishment.

2. The question has again been brought prominently to the notice of this Government by the Commissioner of Meerut, a copy of whose memorandum is herewith enclosed. The Lieutenant-Governor does not consider that a separate officer, with establishments on the scale proposed by Mr. Williams, is necessary for the Meerut Division alone; but he is strongly of opinion that the immediate appointment of such an officer for the whole of these provinces is highly desirable.

3. His Honour understands that the Government of India are fully convinced of the propriety of such an appointment, and it is unnecessary, therefore, to detail here the many cogent reasons which might be adduced in favour of it. He desires, however, to repeat his decided conviction that the appointment of the Inspector-General of Prisons to be the Head of the Department of Public Health, as recommended by the Sanitary Commission, would in these provinces be an altogether impracticable arrangement.

4. Were the duties of the Sanitary officer to be confined to the station and town at the head-quarters of each district, it is possible that the Inspector-General of Prisons might perhaps be able to undertake the office with some prospect of success; but when the extent and population of these provinces are remembered, as also the many and varied duties of the Inspector-General

No. 1261, PUBLIC, 11TH OCTOBER 1867.

of Prisons and Dispensaries, the Lieutenant-Governor believes that, although that officer may nominally be appointed to be Sanitary officer *ex-officio*, it will not be possible for him to conduct the duties with efficiency.

5. The late census of these provinces shows an area of upwards of 83,000 square miles, with a population of 30 millions; the number of towns and villages is 78,112, of which 5,227 have a population of above 1,000 each; almost the whole of these are confined, crowded and dirty, and all urgently in want of sanitation. The Lieutenant-Governor cannot doubt, therefore, that the undivided attention of an experienced officer for this most important work will be wanted for years to come, and he ventures again to press the matter earnestly upon the attention of His Excellency the Governor-General in Council.

6. As regards the question of expense, if the Government of India would grant the services of a Medical officer upon the pay and allowances of his rank, this Government would arrange to pay his staff salary (say Rs. 600 per mensem), together with the necessary subordinate establishments from Local Funds; the total expense from Imperial revenue would not therefore exceed Rs. 10,000 a year, and the Lieutenant-Governor hopes that, under the circumstances stated, the sanction of the Government of India to this comparatively small expenditure will not be withheld.

EXTRACT from the Proceedings of the Honourable the Lieutenant-Governor of the North-Western Provinces, in the Police Department, dated 18th July 1867, No. 71A.

From R. SIMSON, Esq., Secretary to Government, North-Western Provinces, to the Inspector-General of Police; dated Nynce Tal, 18th July 1867, No. 545A.

With reference to the letter from your office, No. 1954, dated the 6th May last, with its enclosures, and in continuation of the letter from this department, No. 395A, dated the 31st idem, I am directed to state that His Honour has perused with much satisfaction and interest Major Watson's report in regard to the Police arrangements at Hurdwar during the fair recently held at that place, which were most creditable to the officers and men of the Police of these Provinces and the Punjab.

2. All the Police arrangements appear to have been excellent, and they reflect the highest credit upon the administrative ability and tact of Major Watson, whose health, His Honour regretted to learn, did not escape injury from his exertions.

3. The aid furnished by the Jat Horse on the occasion is also noticed with approbation.

ORDER.—Ordered that the above be forwarded to the General Department for information and record.

F. HENVEY,
Offg. Under Secy. to Govt., N.W.P.

No. 106.

ORDER No. 1261, Public, dated 11th October 1867.

To be recorded.

(True Extract.)

A. J. ARBUTHNOT,
Chief Secretary.

JEY, ESQUIRE,
Under-Secy. to Govt. of the
North-Western Provinces,

THE SECRETARY TO THE
Government of Madras

DATED ALLAHABAD, THE SEPTEMBER, 1867.

GENL. DEPT.

SIR,

I AM

pleased to forward to you for the information of His Excellency the Governor of Madras the action of His Honour which to last.

to be forwarded to you for the information of His Excellency the Governor of Madras

two copies of the Resolution of His Honour the Governor regarding the Fair at Hurdwar, on the Ganges, in April

I have the honor to be,

SIR,

Your most obedient Servant,

Henry

Under-Secy. to Govt. of the
North-Western Provinces.

17 Sept
11 Oct

Lieutenant Gortch
West Province
No 835

18 Oct

No 1524

to Resolution of
the Government
the Fair which
was at Hurdwar on

in April last

to the 1867 A: 1261

He recorded

105.106