

Public (1897) Department.

ORDINARY M.S.

G.O., No. 696

Dated 21-6-97

INDEXED.

[Despatch Abstract.]

According to the
dept abolishing some of the road
& railway frontier inspection stations
& observation circles, issuing certain
further orders for the reduction of
plague expenditure.

1/4/98

BACK PAPERS.

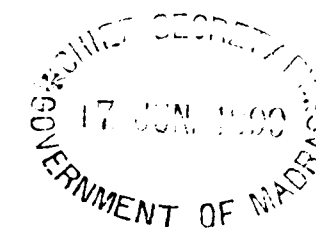
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FURTHER PAPERS.

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Government (1899) of Madras. LOCAL AND MUNICIPAL.



Order No. 696 of 21-6-98.
Mis

Recorded.

Resd.

Regd.

1899.

Enclosures

Spare copies

G.O., No. 878 P., 12th June 1899.

JUNE.

Plague Measures.

Abolishing some of the road and railway frontier inspection stations and observation circles and otherwise reducing plague expenditure.

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following papers :—

From L. E. BUCKLEY, Esq., I.C.S., Plague Commissioner, to the Collectors of Frontier Districts, dated Camp, Hospet, 23rd March 1899, Ref. on C. No. 3556.

I have the honour to request you to report at an early date upon the working of the road inspection stations and observation circles on your frontier, and to enquire if you consider the results attained justify the cost incurred. There is reason to hope that as the hot weather draws on, plague may disappear within the limits of the Presidency, but the probability of having to defend ourselves after the rains against a fresh attack from Bombay and Mysore and possibly Bengal has to be prepared for. It is possible that some modification of our present scheme of defence may be introduced with advantage. On this point I invite your opinion.

2. Road frontier stations are undoubtedly of use in places where the nature of the country forces traffic to converge between narrow lines, but where the country is flat and open there is reason to believe that they can be, and are, as a rule, easily evaded. Cordons round even moderate-sized villages have been found impracticable and it appears of doubtful expediency to attempt to maintain what is in reality more or less of a cordon along a frontier of great length in an open and flat country. I do not suggest that all road inspection stations should be closed at once, but it is possibly advisable that many of them should be, leaving only those which are really efficient. It might be advisable to establish others in places where the nature of the country will render them workable, even though not immediately on the frontier; as an illustration of what I mean, I mention the passes in the hills in the south of Penukonda taluk, Anantapur district, the ghâts between Hosur and Krishnagiri in the Salem district, and between Kollegal and the adjoining taluks.

3. The question of retaining observation circles with their numerous inspectors and supervisors is a difficult one to decide upon. It might be possible in the case of threatened districts to appoint special inspectors to each revenue inspector's range on the threatened frontier, selecting for these posts, as far as possible, men known by the people and likely to have influence with them and placing all such special officers in a taluk under a special Tahsildar or Deputy Tahsildar. In rural areas experience teaches us that the only satisfactory method of grappling with plague is by evacuation and disinfection. It will probably be by the help of the special officers, I suggest, that we shall meet with the greatest success in inducing the people to evacuate, and sanitary inspectors and others might then be called in for disinfection work.

4. In the Deccan districts and in Salem there has grown up among the people a sense of the importance of keeping persons from an infected area at a distance. Such a sense is to be fostered where it exists and created elsewhere, for on this we may, to a great extent, depend for the carrying out equally, if not more satisfactorily and certainly more cheaply, of the work that we are now attempting to do by our road frontier stations.

5. The above are merely suggestions thrown out in the hope of discovering some efficient means of defence which may reduce to some appreciable extent our present enormous expenditure. Your past experience may suggest a scheme on other lines. I shall be glad, if in putting forward a scheme you will kindly show what saving you expect to make. I do not, of course, expect your scheme to be drawn up in any way but roughly; details need only be supplied if any of the proposals put forward is adopted by Government.

6. I shall be obliged by an early reply.

From Lieutenant-Colonel W. G. KING, M.B., C.M., D.P.H., I.M.S., Sanitary Commissioner for Madras, to the Plague Commissioner, dated 29th March 1899, No. 1038—S.

With reference to your letter No. 3556, dated 23rd March 1899, I have the honour to state that as, in your paragraph 3, you suggest measures of great sanitary importance (as to the principles underlying which I hold opinions differing from yours) I should be obliged by your communicating to me the replies you receive from Collectors, and to further ask you will not pass final proceedings thereon till I have had an opportunity of placing my opinion on record.

Ref. on C. No. 3766.

Collectors to whom the Plague Commissioner's Ref. on C. No. 3556, dated 23rd March 1899, has been addressed, are requested to forward their replies through the Sanitary Commissioner for Madras.

(Signed) L. E. BUCKLEY,
Plague Commissioner.

2nd April 1899.

To the Collectors concerned.
" Sanitary Commissioner.

ANANTAPUR.

From B. MACLEOD, Esq., Collector of Anantapur, to the District Medical and Sanitary Officer, Anantapur, dated 7th April 1899, Dis. No. 500.

With reference to your demi-official, dated the 2nd instant, I have the honour to state that the following plague establishment may be dispensed with as they are no longer required :—

- (1) All the sanitary inspectors in Madakasira taluk and the plague supervisor.
- (2) The assistant sanitary inspector of Penukonda.

Copy to the Plague Commissioner for information.

Telegram from the Collector of Anantapur, to the Plague Commissioner, dated Penukonda, 16th April 1899.

Four inspectors, supervisor Gotting in uninfected side, Hindupur, dispensed with. Brito and three inspectors retained; Hunter, Robertson recommend.

From B. MACLEOD, Esq., Collector of Anantapur, to the Plague Commissioner, (through the Sanitary Commissioner for Madras), dated Penukonda, 20th April 1899, Ref. on C. No. 1020.

In reply to your Ref. on Cur. No. 3556, dated 23rd March 1899, as to the working of road inspection stations and observation circles, I have the honour to state that I consulted Major Robertson, the District Medical and Sanitary Officer on the subject; but he has not yet found leisure to give me his views and has now been

transferred to Madras. The administration of plague details in this district has been so largely in the hands of the medical officers that I was obliged to try and get their opinion in the matter.

2. The advance of the hot weather has, as hoped, caused plague to disappear from this district.

3. I agree with you in thinking that in open country travellers can easily avoid a road frontier station. Their establishment causes fear among the ignorant agricultural population, and near Chillamattoor led to a serious and regrettable riot last October. Unless they are really efficient it is best to do without them.

4. On ghât passes where carts with sick people cannot pass except through public roads they are of use, and various places on the edge of the Mysore plateau meet this description, among them Penukonda. Also where a town such as Gooty is to be protected from some particular direction, such as Guntakal, and the road passes between a tank and its paddy fields a road frontier station might be practically useful.

5. As to utilizing the services of revenue inspectors and their superior officers instead of special sanitary inspectors for observation circles, I support the proposal, but would not take them off their ordinary duties, for as soon as such a man is put entirely on special duties his authority as a revenue officer is gone, though he would have still his local experience. I would suggest that they be given 25 per cent. extra pay for the extra plague duty. If they require assistants the vaccinating staff should be given them. These also have local knowledge and owing to fears of inoculation can do no vaccination work.

6. Both these classes of officers have their position to maintain, and are more trustworthy and better in hand than odd men from distant localities hastily trained as sanitary inspectors. Except that a sanitary inspector has an elementary knowledge of disinfection, I see very little in favour of employing such a man, as the villagers pay no attention to his words, and the revenue authorities have continually to be called in to do his work.

7. The lessons of this epidemic have been learned by the people and they would in future largely help themselves by keeping out strangers, and giving no trouble in vacating their homes.

From Major R. ROBERTSON, Acting District Medical and Sanitary Officer, Anantapur, to the Collector of Anantapur, dated 18th April 1899, Dis. No. 106.

In reply to your C. No. 1020, dated 3rd April 1899, I have the honour to state that I agree with the Plague Commissioner in his remarks about road frontier stations.

2. A road frontier station on a level piece of ground is absolutely useless and only where natural barriers exist as at Govindapuram and Penukonda should stations be erected. A river in flood is of course admirable, but it is to be remembered that at certain seasons it is dry, yet perhaps, at that period plague may not prevail. The road frontier stations in this district, Penukonda, Govindapuram have, I think, been successful. The station immediately south of Hindûpur could not have been anything else than a failure owing to the open ground and paths in its vicinity.

3. The present equipment of road frontier stations is in my opinion sufficient. The establishment could easily get on without a sanitary maistry. This appointment, as far as I see, is a sinecure at least in this district.

4. Regarding observation circles, I have little to remark; each inspector was equipped with two tubs, one bucket and Chinese pump. Perchloride of mercury, permanganate of Potassium and crude carbolic acid were in the possession of each inspector. Latterly, I issued an order that inspectors were to travel not less than 12 miles per day; as they are all mounted there is no hardship. The inspectors are a very inferior lot, but as nothing better could be found one cannot grumble. I regard them as too highly paid.

Ref. on C. No. 1020.

Copy communicated to the *Plague Commissioner, Madras*, in continuation of this office Ref. on C. No. 1020, dated 20th April 1899.

ANANTAPUR,
24th April 1899.

(Signed) B. MACLEOD,
Collector.

NORTH ARCOT.

From J. K. BATTEN, Esq., Acting Collector and District Magistrate, North Arcot, to the Plague Commissioner (through the Sanitary Commissioner, Madras), dated Chittoor, 6th April 1899, Dis. No. 908—P.

With reference to your letter, Ref. on Cur. No. 3556, dated 23rd March 1899, I have the honour to state that the results attained by the four road frontier inspection stations in this district on the Mysore frontier do not justify the cost incurred. They have been in existence for the last seven months and only ten persons have been detained in two of them and none in the other two. Except from Alekuppam station I very rarely get intimations of the passage of persons through these stations. The above stations have been established in the best localities possible, but the people avoid them by using the numerous cart-tracks and jungle-paths with which the frontier line abounds. In communication with Mr. Scott Elliot, I have organized a system of patrolling the frontier for three days in a week by the plague inspectors of observation circles and this seems to have a good effect. The best method of guarding the frontier seems to be to enforce the efficient carrying out by headmen of villages on the frontier of their duties under additional mufassal regulation No. 15 and to increase wherever necessary the number of taliaries in such villages so that the headmen may, with the help of their taliaries, guard the tracks and paths passing through their villages and issue passports to persons coming from infected areas. The plague inspectors and supervisors will supervise the work of the headmen during their patrol. The Tahsildar of Palmanér reports that fourteen additional taliaries are required for his taluk in connection with this work. The Deputy Tahsildars of Kangundi and Punganûru who were asked to report about this matter have not yet done so. I think however that twenty taliaries will be required for Kangundi division. For Punganûru no additional hands will be required as there seems to be a superfluity of taliaries in that division. It will however be necessary to grant them an extra allowance as their pay is small at present. I estimate the monthly cost of this additional establishment at Rs. 170. A sum of Rs. 312 is being spent now every month in maintaining the four road frontier inspection stations and when nurses for which I have applied are entertained, the cost will rise to Rs. 372. There will thus be a saving of Rs. 200 a month, if the road frontier inspection stations are abolished and if the system of guarding the frontier by taliaries is introduced.

2. As for observation circles and circle inspectors, I think that they are necessary.

BELLARY.

From E. A. ELWIN, Esq., Acting Collector of Bellary, to the Plague Commissioner, Madras (through the Sanitary Commissioner, Madras), dated 18th April 1899, Ref. on Cur. No. 1264 P.

I have the honour to offer my remarks with reference to the points raised in your letter R. C. No. 3556, dated 23rd March 1899. I regret the delay that has occurred, but the District Medical and Sanitary Officer's suggestions on the subject, a copy of which is enclosed, reached me only two days ago in camp.

2. *Working of Road Frontier Inspection Stations.*—Not a single case of plague has hitherto been stopped at any of these numerous stations, though during the rains the fear of medical inspection and possible detention for ten days must have operated largely to prevent persons who were not in good health or who had been in contact

with plague cases from entering the district from the other side of the Tungabhadra river. At the present time all these stations are, I consider, practically useless (a) those on the Tungabhadra because the river is fordable everywhere and there is no means of compelling traffic to pass by way of the stations, (b) those on the Mysore frontier, because in spite of their being located on main roads and thus catching most of the traffic there appears to be no plague nearer than Tumkur about 100 miles from this district.

3. *Proposals regarding Road Frontier Inspection Stations.*—The stations at Hosūr and Giriapuram may be abolished and the camps dismantled. Hosūr, some 3 or 4 miles from Hospet, is a very feverish spot and the staff is almost constantly sick: there is no reason why the ferry there which is not far from Munirabad railway station, should not be stopped and the traffic directed to the rail between Hospet and Munirabad, especially as carts cannot cross the river at the ferry and the number of foot-passengers is small. Giriapuram which was opened to act as a check on traffic coming in by way of the two Bombay villages which break our river frontier between Magala and Mailar is unsuitably situated and has not proved a success: the camp which was struck by lightning during the rains, was almost unfit for habitation as long ago as last November when I visited it and need not be reconstructed: if necessary, a more suitable site will be selected later on. The remaining thirteen stations on the Tungabhadra may be closed till the end of June when the river may be expected to be in freshes and such of the stations as then seem required may be re-opened. The still remaining six stations, all on the Mysore frontier, may be closed; they can be re-opened should plague become indigenous in Chittaldurg or Shimoga, the districts in the Mysore State, which adjoin this district. The nineteen camps referred to may be placed each in charge of two peons to be held responsible for guarding the sheds and petty equipment therein from the ravages of rats and white-ants. If it will be difficult after once dispensing with them to procure again the services of the medical subordinates now in charge of these stations, some of them may be retained at the camps as proposed by the District Medical and Sanitary Officer.

4. *Working of Observation Circles.*—I know only one instance in which a member of the observation staff has so far done any detection worthy of the name: this was at Holagondi in the Hadagali taluk in November last. The staff has of course been useful in teaching the village reddis their duties as plague local authorities and in getting the villages occasionally cleaned up, but now that the villagers better understand their responsibility in regard to the watching of persons arriving from infected areas it seems hardly necessary to keep up so costly a body of special officers. What we want to ensure is the despatch from the newly-infected village of the earliest possible intimation of the occurrence of the case of plague, and for this we must look more to the village officers and other villagers than to sanitary inspectors who as men only temporarily employed in the district have little or no influence and can as a rule only pass on what information they gather from the village officers.

5. *Proposals regarding Observation Circles.*—The observation circles on the Mysore frontier (groups VIII, X and XI) may for the present be closed along with the road frontier inspection stations. In the other groups I would replace every two sanitary inspectors by one revenue inspector who should hold a permanent appointment in the Revenue Department of, say, not less than Rs. 30 and draw Rs. 40 or Rs. 45 while on this special duty: several of the existing revenue inspectors may be employed. The new men after undergoing training similar to the temporary sanitary inspectors should, being persons holding permanent appointments in the district with a good deal to lose in the case of misbehaviour, prove much more reliable than the present somewhat irresponsible staff. The plague supervisors may be retained for a few months longer till the new men have thoroughly learned their work. The assistant plague inspectors may be removed from all the unions, except Alūr and Hospet, where the plague has not yet entirely died out. The question as to the system to be ultimately adopted might well form the subject of a conference to be attended by the Collectors of the frontier districts.

6. *European and Eurasian Nurses.*—I agree with the District Medical and Sanitary Officer, and consider that these are useless for ambulance staffs. The question, however, does not seem to arise in connection with the matters referred to in your letter under reply.

Forwarded to the Plague Commissioner direct with the request that early orders may be passed regarding the abolition of the Hosūr and Giriapuram road frontier inspection stations and the cessation of precautionary measures on the Mysore frontier.

ENCLOSURE.

Copy of letter No. 878-P., dated 14th April 1899, from the District Medical and Sanitary Officer, Bellary, to the Collector of Bellary.

With reference to your foot-note No. 1264-P., dated 29th March 1899, I have the honour to inform you that as plague is prevalent only in Alūr and Hospet, and the districts adjoining Bellary are practically free from the disease, I am of opinion that steps should be taken to reduce the establishment.

2. At present a large number of inspectors are employed and the duties assigned to them are—

- (a) to constantly and systematically patrol the villages comprising their circles once a week, and to give earliest information of any cases of plague.
- (b) to see the village headman on arrival and obtain information from him regarding new arrivals, and to see if they are provided with passports and to check them;
- (c) to keep a record of all persons suffering from continued fever for more than twelve hours and to arrange with the village headman for the inspection of such persons twice daily;
- (d) to immediately inform the village headman and all superior officers up to the Collector by the quickest means of any suspicious or actual cases of plague, to isolate the patients and the contacts and to supervise the disinfection of the houses, &c.

The assistant inspectors have similar duties in union villages. The unions have their own establishment and there is no necessity to retain these inspectors.

I consider that the duties of the inspectors may safely be transferred to the revenue inspectors who are in close touch with the villagers. During outbreaks of cholera and other epidemics the village officers have hitherto rendered valuable services when properly supervised by the revenue inspectors and other superior officers.

The Tahsildars and Deputy Tahsildars should be held responsible that their subordinates are doing their duty.

If plague re-appears after the monsoon a few temporary assistant inspectors should be appointed to assist revenue inspectors.

3. As regards the supervisors their retention is necessary, they will be required to inspect each village in their range at least once a month.

4. As there is scarcely any plague in Mysore the observation circles and road inspection stations on the Mysore frontier can be abolished at once.

The following road inspection stations also may be done away with for the reasons noted against each:—

- | | | |
|----------------|-----------|---|
| (1) Hosūr | | Permanently, as it is only 3 miles from Hospet. |
| (2) Kampli | } | As there are Local Fund dispensaries at these places. |
| (3) Siruguppa | | |
| (4) Giriapuram | | As the number of passports issued are very few. |

5. I would recommend the retention of a medical subordinate and one peon at the other road inspection stations dispensing with the rest of the establishment.

6. I find that European and Eurasian nurses are practically useless for attending sick in villages. I therefore recommend that trained native nurses or midwives be employed on Rs. 15 a month plus Rs. 15, plague allowance.

7. My proposals in a condensed form are given below :—

(a) Abolition of—

- (1) All road inspection stations on the Mysore frontier.
- (2) All observation circles on the Mysore frontier.
- (3) The road inspection station at Hosur permanently.
- (4) The road inspection station at Giriapuram.
- (5) The road inspection stations at Siruguppa and Kampli.
- (6) All plague inspectors except those on the ambulance staff.

(b) Re-employment of—

- (1) A few temporary assistant plague inspectors after the monsoon.

(c) Retention of—

- (1) One medical subordinate and one peon for the remaining road inspection stations.

(d) Substitution of—

- (1) Trained native nurses or midwives for European and Eurasian nurses on the ambulance staff.

From the Collector of Bellary, to the Plague Commissioner, dated 21st April 1899, Ref. on C. No. 1264 P.

Statement showing the monthly savings that would be effected by the proposals in Collector's letter, dated 18th April 1899, Ref. on C. No. 1264 P.

Abolition of two road frontier inspection stations.

	Present scale.	Proposed scale.
Hospital assistants and establishment ..	164	RS.
		

Temporary closure of six road frontier inspection stations on the Mysore frontier.

Hospital assistants and establishment ..	488	Two peons for each	84
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Temporary closure of thirteen road frontier inspection stations on the Tungabhadra river.

Hospital assistants and establishment..	1,125	Two peons for each	178
		or	
		(One hospital assistant and one peon,—	
		District Medical and Sanitary Officer's	
		proposal)	414+*130

* Allowances.

Temporary closure of fifteen observation circles on the Mysore frontier.

Three supervisors	435	
Six peons	54	
Fifteen inspectors	1,080	
Fifteen peons	135	

Substitution of Revenue Inspectors for Sanitary Inspectors in the remaining observation circles.

Thirty-four inspectors. { 18 on Rs. 75 } 2,470	Revenue inspectors—	
{ 16 on „ 70 }	9 on Rs. 45	725
Thirty-four peons	8 on „ 40	153

Abolition of sixteen Assistant Inspectors.

Sixteen	400	
Grand Total	6,637	1,140 or 1506.

Savings Rs. 5,497 or 5,131.

(Signed) E. A. ELWIN,
Ag. Collector.

To the Plague Commissioner, Madras,
in continuation of this office Ref. on C. No. 1264-P., dated 18th April 1899.

From L. E. BUCKLEY, Esq., I.C.S., Plague Commissioner, Madras, to the Collector of Bellary, dated 24th April 1899, Ref. on C. No. 4389.

With reference to your Ref. on C. No. 1264-P., dated 18th April 1899, I note that you consider that the road frontier inspection stations on the Mysore frontier are practically useless, as plague exists nowhere within a radius of 100 miles. I have the honour to enquire whether you consider that they act as any check over traffic, that is to say, whether they are likely to be of use if plague comes nearer, or whether they can be easily avoided by those who wish to do so.

From E. A. ELWIN, Esq., Acting Collector of Bellary, to the Plague Commissioner, Madras, dated 5th May 1899, Ref. on C. No. 1264-P.

In reply to your letter, R. C. No. 4389, dated 24th April 1899, I have the honour to inform you that of the six road frontier inspection stations on the Mysore frontier, those at Rayadrug, Jagirakallu, and Duggavatti cannot be easily avoided by travellers who wish to do so and are likely to be of use if plague comes nearer as affording protection respectively to the taluks of Rayadrug, Bellary and Harpanahalli, while those at Hulikera near Alur, Benakanahalli near Ujjini, and Vaddinahalli being situated in flatter and more open country do not serve as any appreciable check over traffic.

SOUTH CANARA.

From A. F. PINHEY, Esq., Acting Collector of South Canara, to the Plague Commissioner of Madras (through the Sanitary Commissioner, Madras), dated Mangalore, 8th April 1899, Ref. on C. No. 210-P.

In reply to your letter, Ref. on C. No. 3556, dated 23rd March 1899, I have the honour to state as follows.

2. No observation circles have been organised in this district; but there are road frontier inspection stations on the Mysore frontier and plague camps at seaports having frequent direct communication with Bombay and other ports in the Bombay Presidency.

3. First as regards the road frontier inspection stations, two of the five stations originally sanctioned* have been already closed with your sanction conveyed in your Proceedings, No. 621, dated 4th March 1899; and the District Medical

and Sanitary Officer and myself agree in thinking that the remaining three stations may also be closed at once. I enclose copies of District Medical and Sanitary Officer's letters Nos. 965, dated 29th March, and 1014, dated 5th April 1899, which speak for themselves. He has just returned from an inspection of the station at Sampaje. The present stations must be considered to have been an absolute failure, but the money spent will not have been wasted if we utilize the experience we have bought. The district of Shirur has been free from plague since the beginning, while no cases have occurred in Madur and Hassan for several months past, and these are the three districts of Mysore which have commerce with our district. In other parts of Mysore also, plague is greatly on the decline and may be expected to die out at no distant date. In any case, we need not, it seems, apprehend much danger from the existence of the plague in these remote parts as long as it does not attack the three districts above mentioned which as well as Coorg now serve as a barrier between our district and the plague-infected parts. Should occasion arise to try again the experiment of road frontier stations, I should select more suitable sites and ask for a more efficient staff. I therefore request your sanction to close the existing stations at once, and I beg the same may be communicated to me by telegram.

4. As regards the plague camps at the seaports, I am not in favour of abolishing them just yet as plague unfortunately still rages in Bombay between which and Mangalore and some other ports of this district there is constant communication both by steamers belonging to British India Steam Navigation Company and Shephard Company and native vessels. The cost of these stations at present is only Rs. 290 per mensem. They will however be closed as usual during the rainy months, June to August, and the necessity or otherwise of re-opening them in September next will depend upon the state of the Bombay Presidency then.

5. When the road frontier inspection stations are closed the extra work connected with plague will diminish greatly in this office, so that I shall be able to abolish one of the two hands sanctioned in G.O., Mis. No. 434, Revenue, dated 30th January 1899, simultaneously with the closure of the said stations. But the services of the other clerk (viz., on Rs. 30) will be necessary till the end of May as the plague camps at the seaports will be working till then.

6. The savings which will be effected if the above proposals are approved, will amount to Rs. 396 per mensem as particularized below:—

(1) Road frontier establishment	Rs.
(2) Huzur establishment	339
(3) Police establishment on plague duty at the three frontier stations.	15
	42
Total ..	396

ENCLOSURES.

From GEORGE V. WORTHINGTON, Esq., M.A., M.B., Acting District Medical and Sanitary Officer, South Canara, to the Collector of South Canara, dated Mangalore, 29th March 1899, No. 965.

I beg to state that I have inspected the plague camp at Sampaje on the 20th instant. It appears:—

- (1) since the opening of the station, 30 passports only have been issued.
- (2) that passengers coming by that road, all come from or through Coorg. In Coorg they have their own plague arrangements and inspection stations.
- (3) that there are no less than four bypaths by which persons wishing to avoid inspection and subsequent observation pass into the district.

Bypaths.

No. 1.—From the toll-gate of Sampaje *via* Nellikumbri and Buntodi to Kadpal bridge where it meets the main road at about a mile from here.

No. 2.—From Basavadka *via* Bachiguthu, Nellikumbri and Buntodi to Kadpal bridge where it meets the bypath No. 1.

No. 3.—From near Kullugundi bridge *via* Chemba to main road at about quarter mile from here.

No. 4.—From Mercara *via* Bhagmandal and Thodikan to Peraye where it meets the main road at about 9 miles from here.

2. Under these circumstances I should be inclined to recommend that the station be abolished. On the other hand, if it is to be maintained and efficiently, I consider that the following are absolutely necessary:—

(1) *Repairs*.—The roofs of both plague and segregation sheds have been in many places partly destroyed by a storm some weeks back and must be repaired. One or two doors also need repairing.

(2) Articles required for use in plague and segregation sheds as per enclosed indent forwarded by Hospital Assistant according to my orders. It is absolutely necessary that every article used in or for the plague sheds shall be kept quite separate from both those of the segregation shed and of the Hospital Assistant's quarters.

Therefore, in several cases, two articles will be required where one might seem sufficient. The same number of articles at least are required at the other plague camps. The medical subordinates have been directed to indent for such of the list as are wanting.

3. It was reported to me while at Sampaje that the "wild fire" sometimes extends to the grassy plots in which the plague and segregation sheds are situated. Should this be the case, the grass and dried bushes around them should be removed by burning in the usual way.

4. The number of Police constables will have to be increased from 2 to 10—two for the road and two for each path.

From GEORGE V. WORTHINGTON, Esq., M.A., M.B., Acting District Medical and Sanitary Officer, South Canara, to the Collector of South Canara, dated Mangalore, 5th April 1899, No. 1014.

In answer to your Reference on C. No. 210-P. of 29th March 1899, I have the honour to state that, from information received from Hospital Assistant K. Krishna Bhatjee who was at Gundia for nearly two months, from the study of the figures concerning the number of passports issued and recovered and from what knowledge I possess of the character of the forest jungle, I have gathered the following facts:—

(1) *At Gundia*.—Bandymen are practically the only persons who receive passports, for it is only those foot-travellers who are in ignorance of the station that come by the road and these are very few indeed, all others avoid it going by a path, which starting at the bridge, quarter furlong from the station, passes along the river side just behind and close to the plague shed and leads to Subramania. This path is left for the main road again by travellers for Mangalore between 2 and 3 furlongs beyond the station.

(2) It is also quite easy on account of its character to make any number of paths through the forest.

(3) The present staff of two Police constables, one maistry, one ward cooly, one waterman is absolutely useless for enforcing the regulations when, as has happened on several occasions, travellers arrive in numbers, they simply have to be allowed to pass.

(4) The number of passports issued at Gundia up to 30th March 1899 (inclusive) is 4,169. I am informed that more than three-fourths of this number travel to Mangalore and are for the most part bandymen who are not detained and who simply receive their passports and keep them not presenting them to any local authority whatever. Of this number, 256 only have been recovered in Mangalore.

Two hundred were recovered from the bandymen, as they passed out of the district again by Hospital Assistant in charge; of these 200, not one had been shown to any local authority.

(5) No one has been detained.

At Charmadi—apparently the same conditions prevail—

(1) The character of the forest enables travellers to make any number of paths to avoid inspection.

(2) Ten thousand one hundred and thirty-four passports were issued up to 28th March 1899 (inclusive) mostly to travellers bound for Mangalore. Of these 134 only have been recovered in Mangalore.

(3) No one has been detained.

Having studied the abovementioned facts, I have come to the following conclusions:—

(1) That these two stations and the system of passports as at present worked are quite inefficient.

(2) That in their present position owing to the character of the forest, it is quite impossible to make either station efficient whatever the number of Police you post there.

Under these circumstances, I should recommend that both be abolished either immediately or at any rate at the end of this month when as I informed practically the whole of the coffee will have come down and therefore most of the traffic ceased. Taking into account the fact that the bandymen practically never show a passport to any local authority, they may just as well be closed at once.

(3) If arrangements become necessary for another year, I think your suggestion of placing the stations at Beltangady, Uppinangady and Puttūr a good one and for this reason that it will be considerably more difficult to make paths to avoid inspection over cultivated and walled in fields and compounds.

(4) Personally I cannot see how in a district like this the passport system can work, each traveller mentions the name of any place except that for which he is bound and even if he mentions the place he gives the wrong house or street, how can observation be enforced under these conditions?

(5) My report on Sampaje has already been forwarded, in which I have said "I am inclined to recommend" that the station be closed.

Telegram from the Collector of South Canara, to the Plague Commissioner, dated Mangalore, 1st May 1899.

My letter, 8th April. Request early orders about closing frontier stations.

COIMBATORE.

From C. H. MOUNSEY, Esq., Acting Collector and District Magistrate of Coimbatore, to the Plague Commissioner (through the Sanitary Commissioner, Madras), dated 12th April 1899, D. Dis. No. 283-P.

I have the honour to reply to your letter, Reference on C. No. 3556 of the 23rd March, in regard to the working of the road inspection stations and observation circles. The reply from the Deputy Collector, Kollegal, reached me on the 6th instant and, through stress of other work, &c., I have been unable to answer before now.

2. I enclose a copy (paragraphs 1, 3 and 4) of the Deputy Collector's letter of the 2nd April which refer to the subject. His letter of the 23rd February 1899 is printed in your Proceedings, No. 651—44, dated 6th March 1899, which only seems to answer in part the reference made. I have, however, discussed the subject with the Deputy Collector personally and can therefore report that the working of the road inspection stations and observation circles has been generally satisfactory. Owing to the conformity of the Kollegal taluk which has to be protected from plague in Mysore, the road frontier stations cannot easily be avoided. Further, the cost of that at Talavadi where a Hospital Assistant performs the work is not very great. I have had the advantage of discussing the matter with you and we agreed that no change seemed advisable at present.

3. In regard to observation circles we have now four of these grouped round Kollegal. Two of these Nos. 1 and 2 and Nos. 5 and 6 might perhaps, with advantage, be combined and it is even doubtful if the services of a Supervisor are further wanted. It must be remembered that Kollegal is the head-quarters both of a Deputy Collector, a Tahsildar, and a Revenue Inspector; and these officers in the comparatively small amount of country they would have to look after ought to be able efficiently to control operations.

4. I also enclose a copy of the Kollegal Deputy Collector's letter of the 27th March except paragraph 3 (which refers to scavenging establishment not as a plague charge).

5. In regard to the ambulance staff it is being maintained at a large cost and is doing nothing.

ENCLOSURE.

EXTRACT from a letter from M.R.Ry. V. CHAPPAN MENON Avergal, B.A., Deputy Collector of Kollegal, to the Collector of Coimbatore, dated 2nd April 1899, D. Dis. No. 52-P.

In reply to your endorsement, dated 27th March 1899, on Plague Commissioner's letter of the 23rd item, Ref. on C. No. 3556, I have the honour to state that a full report on the working of the road frontier inspection stations in the Kollegal taluk has been already furnished to you (*vide* my letter, dated 23rd February 1899, printed in the Plague Commissioner's Proceedings, No. 651—44, dated 6th March 1899), and I have nothing to add to it.

3. The plague supervisor and the sanitary inspectors have, on the whole, fairly done their duties and their presence has stimulated the people to a sense of the sanitary requirements of their villages. The progress made in sanitation is and must, for a long time, be necessarily slow. But attempts are being made to induce the villagers to take more kindly to sanitary measures.

4. I enclose herein a copy of the demi-official addressed by me to the late Acting Collector Mr. Cumming on the 27th November 1898. Most of the remarks made therein are true even at this date and the people may be relied on to a certain extent in co-operating with us in preventing arrivals from infected tracts into their villages. A spirit of self-reliance is being fostered in them and with plague officers possessing sufficient influence the magnitude of our *direct* operations may be sensibly reduced.

COPY of a letter from M.R.Ry. V. CHAPPAN MENON Avergal, B.A., Deputy Collector of Kollegal, to the Collector of Coimbatore, dated 27th March 1899, Ref. on C. No. 5 (Tour).

In reply to your endorsement, dated 25th March 1899, on Plague Commissioner's letter, dated 11th March 1899, Ref. on C. No. 3096, I have the honour to report that, in my opinion, the following reductions may be effected in the plague establishments in the Kollegal taluk.

2. *Plague Supervisor and Sanitary Inspectors.*—There are now one Plague Supervisor (on Rs. 80 + 45), four Sanitary Inspectors (on Rs. 40 + 30 each) and six peons under them on Rs. 7 each. Two of the Sanitary Inspectors and two peons appear to me to be sufficient, unless plague breaks out in the villages situated close to the limits of the Kollegal taluk in the near future; and I recommend that the services of the remaining officers and peons be dispensed with. The two Sanitary Inspectors whom I propose to retain may be put in charge of the fifth and sixth circles and of a few of the villages of the first circle which require special supervision.

4. *Road frontier Inspection Stations.*—The inspection stations at Sivasamudram and Mudigundam cannot be abolished for some time to come. The cost on these stations is comparatively small and they may be retained. The clerk attached to the Civil Apothecary, Kollegal, is also necessary to receive and check the numerous passports that are now received by him.

5. *Ambulance Staff.*—This staff has now very little work to do. All the members of it excepting the Hospital Assistant and the four ward coolies whose services are required for taking care of the valuable equipment and the plague sheds may be dispensed with at once. If there be any need for their services in future, they may be re-employed although there may be some difficulty in procuring them.

6. The above proposals are made on the assumption that we may not have to actually combat the plague, but should necessity actually arise (a fact which can be known within the next few weeks), the matter may be reconsidered.

CUDDAPAH.

Proceedings of the Plague Commissioner, No. 929, dated 11th March 1899.

READ—the following papers:—

From H. O. D. HARDING, Esq., Acting Collector of Cuddapah, to the Plague Commissioner, Madras, dated Camp, Madanapalle, 9th February 1899, Ref. on C. No. 347-P.

With reference to your letter, No. 264—20, dated 27th January 1899, I have the honour to report as follows.

2. You ask me to employ seven Circle Inspectors on Rs. 70 each in Madanapalle and Kadiri taluks; and you ask me to consider what further measures are necessary by reason of plague in Kolar and also whether a frontier station may not be established on the Hindupur road and at Birangi, Tsadum and Amadagur.

3. I have, in consequence, to-day held a meeting of the Tahsildars of Vayalpad, Madanapalle and Kadiri and the District Medical Officer and we have decided that we want one Revenue Inspector on special duty in each of the five taluks of Vayalpad, Madanapalle, Kadiri, Pulivendla and Jammalamadugu. You agree with me that Revenue Inspectors are preferable to Sanitary Inspectors. So I say no more on that point.

4. The (7) seven circles originally proposed for Madanapalle and Kadiri were designed to observe the Mysore frontier. Now we are threatened on all sides — right round our frontier from Piléru to Badvel—since North Arcot, Anantapur and Kurnool are all sources of danger. That being so, the seven original circles have no particular value. If it be seriously contended that Circle Inspectors to guard the frontier to a depth of twenty miles all round are to be employed, I shall want some thirty men, and they at Rs. 70 a month each will cost Rs. 2,000. I have not got Rs. 2,000; a month, and I presume Government is not prepared to give it. I also think such expenditure is out of all proportion to any results that can be got from it. I gathered in conversation with Mr. Hammick here last year that he was of opinion that Circle Inspectors were useless, and am therefore surprised at your proposal to re-entertain them. A man with some 20 or 30 villages several miles apart can practically do nothing worth doing in the way of searching for plague. His very presence frightens the people and makes them conceal cases if there are any. He has difficulty in entering villages and gets no information. The whole thing both on grounds of finance and common sense must depend on the people themselves. If we trust them and they trust us, as is the case in my district, we have a better assurance of getting information of the first outbreaks than we should have by employing a lot of itinerating meddlers who would cause trouble and learn nothing. I therefore, and my District Medical Officer and Tahsildars agree with me, object absolutely to the re-employment of Circle Inspectors at all. If you think this opinion wrong, I shall be glad to know what actual use these men are found to be in other districts and whether they have even kept plague out. We think then that the actual observation work can and must be done and done for nothing by the people themselves, but at the same time, we think one Special Revenue Inspector, a well-known and trusted man, may well be employed in each of the most threatened taluks as above named. His object will be mainly to keep the people constantly on the alert, to move about among them and familiarize them with what they should do to keep plague out, and if it comes. All my ordinary Revenue Inspectors are now doing this, and as I rely on the people rather than on Circle Inspectors to catch and report plague cases, I consider one special man per taluk quite sufficient. I would pay him Rs. 40, his ordinary pay, plus Rs. 15, travelling allowance in consideration of his range being larger than usual. I must still protest against Rs. 70, Rs. 75 as being far more than is necessary or our finances can meet. If an ordinary Revenue Inspector tours and works hard for Rs. 40 a month, this special Revenue Inspector can cheerfully do more touring, but less work, for Rs. 55. It is absurd to squander our exhausted finances on overpaying the special men who have less work than many kinds of ordinary touring officers, such as Revenue Inspectors, Minor irrigation overseers, District Board overseers, Salt Sub-Inspectors and so forth. If therefore you still think Rs. 70 or Rs. 75 should be paid, I beg you will refer the matter to Government.

5. Regarding frontier stations, I do not understand why I am asked to reconsider the matter. They were abolished because being in open country, they were found useless. This was clear in my previous letters. They are still useless for the same reason. It is no use spending Rs. 500 on sheds and Rs. 100 a month on staff for a station at one out of a hundred ways of entering the district. Birangi, Tsadum and Amadagur can serve no useful purpose, and I do not propose to revive them. Regarding the Hindupur Road, I am informed by the Tahsildar that people enter his taluk by a dozen or more ways from Anantapur and that the traffic on the road is small. That is, of course, no argument as plague fugitives would not be affected by that. The road enters the district between hills and so could be effectively guarded. Effectively, that is, excepting that as soon as a station is constructed, people will come in by other roads. It should be as effective as Chigalabailu, but I am told the place for the station should be in Anantapur district, at a place between the hills called Guravaripalli. My Tahsildar says that when you enter this district, the country is open and people could escape and come in anywhere. I do not myself think frontier stations of much value. Even at Chigalabailu, it is said that people who wish to evade the station leave their carts half a mile on the Mysore side, walk through the jungle and rejoin the cart half a mile on the Madanapalle side. Nothing can prevent this, so that a frontier station even in favourable circumstances is of small utility. I am therefore not in favour of any stations at all.

6. If you will sanction the (5) five Special Revenue Inspectors, I will appoint them at once.

7. I think also that for protecting the two Taluk head-quarters of Kadiri and Vayalpad, a few salt peons may be sanctioned as at Madanapalle to assist the private guards appointed by the people. I should like therefore to have eight more peons for that purpose—either salt peons or extra talayaris who might be paid from the village service fund.

8. Then, my District Medical Officer and the Tahsildars of Kadiri, Vayalpad and Madanapalle, all complain that their establishments cannot cope with the extra work involved by plague correspondence. I think this is true, and I should like your authority to appoint an extra clerk on Rs. 15 in each of their offices. I do not know what other districts are doing in this matter, but the ordinary staffs in Cuddapah are so bad, that extra work cannot be got out of them.

9. As your policy seems to differ from that of your predecessor and as all the questions which I thought were settled when Mr. Hammick came here have now been revived, I have the honour to suggest that you include this district in your tours, as you have not yet done so. I shall be here or hereabouts till the end of the month, when I go to Cuddapah for 3 or 4 days and then to Pulivendla for jamabaudi.

Ref. on C. No. 1885.

The following telegram will be despatched to the Collector of Cuddapah:—

“Pending orders of Government, your proposed observation scheme approved. I sanction five Special Revenue Inspectors. Four clerks require sanction of Board and Government through me with proposition statement.”

22nd February 1899.

(Signed) J. BUCKLEY,
Plague Commissioner.

From H. O. D. HARDING, Esq., Collector of Cuddapah, to the Plague Commissioner, Madras, dated 14th March 1899, Ref. on C. No. 275-P.

With reference to your letter, Ref. on C. No. 3096, dated 11th March 1899, I have the honour to state that I have called on the Sub-Collector and Deputy Collector, Jammalamadugu, to nominate Special Revenue Inspectors for plague work, but have not yet received their nominations. In view of the hot weather and decrease of plague, I think that we can well do without those officers at present. Our risk of infection is less now than it has been any time these six months. So I propose that those appointments be held in abeyance till found necessary. I will consider what

- further reductions can be made. We have little going on except two ambulance corps and one frontier station at Chigalabailu. I am inclined to think that the Cuddapah ambulance corps may be disbanded at once, but do not know how long Government propose to retain those corps.

Letter—No. 929, dated 11th April 1899.

In reply to your letter, Ref. on Cur. No. 275-P., dated 14th March 1899, I have the honour to say that I am of opinion that at the least the two Revenue Inspectors mentioned in your Ref. on C. No. 347-P. of 1898, dated 21st January 1899, should be appointed at once and that, considering that plague is now fully established in the gold fields of Kolar, it seems advisable that one such officer should be appointed for each frontier firka.

2. The Cuddapah ambulance corps may be disbanded. The two European or Eurasian nurses on the Madanapalle staff may be replaced by natives.

11th April 1899.

(Signed) L. E. BUCKLEY,
Plague Commissioner.

To the Collector of Cuddapah.

Copy to Secretary to Government, Local and Municipal Department.

From H. O. D. HARDING, Esq., Acting Collector of Cuddapah, to the Plague Commissioner, Madras, dated Camp, Madanapalle, 1st April 1899, Ref. on Cur. No. 341-P.

With reference to your letter, Ref. on Cur. No. 3556, dated 23rd March 1899, I have the honour to report that I have only one frontier station in my district, no observation circles and have only had one case of plague. I can't therefore offer remarks of great value based on experience. But I am entirely of accord with you in the views laid down in your letter under reply. I propose to retain my one frontier station at Chigalabailu till all danger from the Mysore side has ceased. That station fulfils the conditions essential to a road frontier station, i.e., it is on a road where it passes through hills and the frontier inspecting officer can observe all passengers, save such as deliberately leave their carts and evade him by walking through the jungle. Such people none can catch. Up to date he has not detected a plague case—due no doubt partly to the fact that plague has never come very near my frontier and partly to the fact that the existence of the frontier station and also of private kavalgars round Madanapalle town deters plague fugitives from coming that way. My other proposed frontier stations were never opened because fortunately when the violent opposition of the people made me visit all the proposed sites in person, I found the country so open that the stations would have been useless.

2. As regards observation circles, finding that the young men who came as Sanitary Inspectors and the unknown supervisors simply terrified the people, we also abolished all these. If they had been working for the last six months, they would have been absolutely useless, and the one case of plague, which we did have, occurred beyond the proposed guarded area. The chances are about 1,000 to 1, that that man would not have been caught *en route* by any number of inspectors or supervisors. I am opposed entirely to a preventive force of inspectors and supervisors. They are very expensive and the most they can ever hope to do is to catch a case of plague soon after it occurs and so enable us to apply measures to prevent its spreading. Whether in other districts any inspector or supervisor ever has caught a case of plague in that way—except perhaps while inspecting near an already infected town—I am unable to say; but I consider the odds are so very heavy against his doing so that any money spent on such an inspecting agency is money thrown away.

3. Since plague has come apparently to stop for a time, the heroic and expensive measures that were justifiable when we hoped to crush it out at once are now quite unjustified. We have a village agency in every district, and so long as we have the

confidence of the people, do not pester them with meddlesome and sometimes foolish strangers and leave them in the belief which after all is natural to them that the local officers will help them when disease occurs, we can reckon with perfect safety on our village Reddies reporting plague cases as they occur and we shall hear of a case through that ordinary channel far sooner and with far greater certainty than we should were an inspector circulating vaguely and frightening people into concealment.

I would propose therefore to retain my Chigalabailu station till Mysore is free of plague. I would retain the Madanapalle ambulance corps till North Arcot and Mysore are both free of plague. I would abolish the Cuddapah ambulance corps at once and not re-employ it unless surrounding danger makes it necessary after the hot weather. I would employ no inspecting agency at all. I thought at one time of employing Special Revenue Inspectors in each threatened taluk, but think now that even they will not be of use enough to earn their pay. I rely on my village officers and people and think one inspecting man for 5, 10, 20 miles will be no extra use. Of course should plague invade us, Sanitary Inspectors might then become necessary for disinfecting purposes and should any village be attacked Special Revenue Inspectors under a Special Deputy Tahsildar would, as you suggest, be the most suitable agency for encouraging evacuation.

It is obvious that with plague as a yearly visitor or permanent disease we cannot maintain our present enormous expenditure. Your proposals are practically on the lines we have been working on in this district. As I have never done much more than is now proposed, I cannot show great savings, but I think the ambulance corps at Cuddapah may go. The Sub-Collector proposes to send away also the Madanapalle ambulance corps retaining only one spare hospital assistant for emergencies. I am inclined to agree with him, but seeing that I have no experience of the actual working and usefulness of the corps, I hesitate to recommend its abolition while Vellore continues to threaten us.

4. The only other expenditure of importance that we incur is the Special Plague officer at Madanapalle and an Extra Medical officer at Cuddapah. I think that both these officers may be dispensed with and that we can manage with the district staff till we are really attacked.

5. I think the Special Medical officer who examines persons alighting at Rajampet is also hardly necessary any longer.

6. To sum up, I would dispense with—

- (1) the Cuddapah ambulance corps;
- (2) the Special Plague officer and his clerk;
- (3) the Special Medical officer;
- (4) the Hospital Assistant at Rajampet; and
- (5) I would not employ the five Special Revenue Inspectors which you sanctioned in your telegram, dated 22nd February 1899.

The monthly savings involved in these proposals amount to Rs. 1,425. My experience of plague has fortunately been very negative, but the impression left on me is that we have made a great mistake in many of our attempted preventive measures and that it will be far wiser in future to reserve our resources to fight the disease when it breaks out.

GANJAM.

From H. D. TAYLOR, Esq., I.C.S., Acting Collector of Ganjam, to the Plague Commissioner, Madras, dated Chatrapur, 27th March 1899, Dis. No. 611-Eng.

With reference to your R.C. No. 3556, dated 23rd instant, I have the honour to state that there are no road inspection stations and observation circles in this district.

2. The scheme of observation for Calcutta sanctioned in G.O., No. 899, dated 12th December 1898, was ordered to be held in abeyance until considered necessary.

GODAVARI.

From V. A. BRODIE, Esq., Collector of Godavari, to the Plague Commissioner, dated Cocanada, 3rd April 1899, D. Dis. No. 1089-Rev.

In reply to your Ref. on C. No. 3556, dated 23rd March 1899, I have the honour to state that neither road frontier inspection stations nor observation circles have been established in this district up to date. I have therefore no modifications to suggest in the existing system of defence of the frontier.

KISTNA.

From R. MORRIS, Esq., Collector of Kistna, to the Plague Commissioner, dated 3rd April 1899, Dis. No. 266-P.

In reply to your reference of the 23rd March 1899 on C. No. 3556, I have the honour to state that we have no road inspection stations and that I have no experience of their working.

KURNOOL.

Proceedings of the Plague Commissioner, No. 898, dated 1st April 1899.

Read the following :—

From MUHAMMAD RAZA KHAN, Esq., Collector of Kurnool, to the Plague Commissioner, dated Camp, Dhone, 24th March 1899, No. M.—Tour.

Adverting to your letter, No. 3096, dated 11th March 1899, I have the honour to state that plague having very greatly decreased in this district, I think it desirable that the special establishments should be considerably reduced and the expenditure in connection with plague operations proportionately curtailed.

2. I have already informed you by wire that Mr. Gahan's services are not at all necessary from the 1st proximo. The clerk on Rs. 20 and the two peons on Rs. 7 each allowed to Mr. Gahan should also be dispensed with from the date with effect from which the abolition of his office is sanctioned.

3. I consider it quite unnecessary that the observation circles on the borders of the Nizam's territory should continue to be maintained. The infected districts of Hyderabad are far remote from the limit of this district and the arrivals from the former are very few or none. The circle inspectors and supervisors on the frontier have been perambulating their charges for the last one year but they have not so far detected even a single case of fever imported from the Hyderabad territory, and I consider that no useful purpose will be secured by the continued employment of the observation staff there. I therefore suggest the abolition of seven circles now existing on the Nizam's frontier and the formation of three new circles in continuation of the existing ones on the eastern and southern sides of the Pattikonda taluk so as to ensure systematic observation within a radius of twenty miles from Peravali and other four infected villages of that taluk. The total number of observation circles will then be reduced from 14 to 10 (all in the Pattikonda taluk) resulting in a corresponding decrease in the number of circle inspectors. The work of these inspectors will be supervised by two officers—Messrs. Anderson and Johnston—and the services of supervisors Messrs. Berlie and Hare may be very conveniently dispensed with.

4. Concerning the six road inspection stations, I think that they need not be closed. Sheds have been erected at a very heavy cost at each of the stations, and the hospital assistants, &c., now employed at the inspection stations may be retained for sometime.

5. Reduction in the establishment shall also be effected by me at an early date. The special passport-issuing officer at Nandyal will be done away with, his duties being entrusted to the civil apothecary at the place pending the transfer of the work

to the stationmaster as enjoined in G.O., Mis. No. 1188 P., dated 27th September 1898. The number of nurses will be reduced to one, she being employed at the Dhone railway inspection station. The two nurses now serving on the ambulance staff will be replaced by two midwives on Rs. 25 each. Some of the menial servants will also be dispensed with.

Letter—No. 898, dated 1st April 1899.

In reply to your letter, dated 24th March 1899, No. M.—Tour, I have the honour to say that I approve of your proposals in paragraph 5, and to ask under whose orders the supervisors will work when Mr. Gahan goes.

2. A general reference will shortly be made to Government on the questions of policy raised in paragraphs 3 and 4.

(Signed) L. E. BUCKLEY,
Plague Commissioner.

To the Collector of Kurnool.

Copy to the Secretary to Government, Local and Municipal Department.

Proceedings of the Plague Commissioner, No. 979, dated 13th April 1899.

Read the following :—

From MUHAMMAD RAZA KHAN, Esq., Collector of Kurnool, to the Plague Commissioner, dated 6th April 1899, R.C. No. 570-P.

Adverting to your letter, No. 898, dated 1st April 1899, I have the honour to state that the two supervisors will now work under the orders of the District Medical and Sanitary Officer.

Proceedings—No. 979, dated 13th April 1899.

Recorded.

(Signed) L. E. BUCKLEY,
Plague Commissioner.

From MUHAMMAD RAZA KHAN, Esq., Collector of Kurnool, to the Plague Commissioner, dated 6th April 1899, Dis. No. 415-P.

Adverting to your letter No. 3556, dated 23rd March 1899, I have the honour to invite your attention to my letter No. M.—Tour of the 24th ultimo, in which I have after full consideration made proposals for the reduction of the existing establishment. The maintenance of ten observation circles in the Pattikonda taluk, the employment of a similar number of sanitary inspectors and two supervisors who will work under the orders of the District Medical and Sanitary Officer and the continuance of the six inspection stations on the Hyderabad frontier will, in my opinion, quite meet all requirements. The suggestion that a special officer well acquainted with the people may be appointed to each Revenue Inspector's range and that the work of this special staff may be supervised by a special Tahsildar or Deputy Tahsildar seems to be a good one, but this course is not, I assure you, necessary for this district at present. Should unfortunately there be a recrudescence of the disease here or in an adjoining district or province after the setting in of South-west monsoon, special measures and the suggestion referred to above may then be considered.

From MUHAMMAD RAZA KHAN, Esq., Collector of Kurnool, to the Plague Commissioner, dated 8th April 1899, Dis. No. 422-P.

ABSTRACT.—Stating that his detailed proposals for the reorganization of plague establishments in the Kurnool district have been already submitted and that they may be referred to the Sanitary Commissioner for remarks.

MALABAR.

From J. H. GWYNNE, Esq., Deputy Collector of Wynaad, to the Collector of Malabar, dated Manantoddy, 16th April 1899, A.

With reference to your endorsement, dated 27th ultimo, Ref. on C. No. 406, on copy of the Plague Commissioner's letter of the 23rd idem requesting me to report whether I believe that many persons have succeeded in evading the frontier inspection stations established here, and, if so, what remedy I would suggest, I have the honour to submit that, so far as my knowledge or information goes, there has been no systematic evasion of the plague restrictions along our threatened frontier. This I must attribute more to natural causes. We have happily a belt of thick forest extending all along the Wynaad frontier, where it marches with the Provinces of Mysore and Coorg, and this fringe of forest has the notoriety of being infested with various descriptions of wild animals. The possibility of people from the infected parts of the Mysore Province, bent on evading our frontier inspection posts, finding their way into this taluk through this tract of forest, is therefore almost *nil*. All the known routes from Mysore are now carefully watched. Cases of evasion have, I may say, been very rare. Of course one must be prepared to hear that a solitary case of evasion does occur once in a way when a foolhardy man makes up his mind to brave the dangers that threaten him in the forest.

2. Although the country along the Mysore border is flat and open, the presence of this impenetrable forest has the effect of directing the traffic generally to converge either towards Manantoddy *via* Bavali, or Sultan's Battery *via* Mathanga, where efficient establishments are maintained to watch the ingress of people and articles of merchandise coming from Mysore.

3. I am of opinion that the present system of check is all that can be desired and I have no suggestions to offer for its improvement.

4. If the disease continues to abate in Mysore, we might soon be able to make a reduction in the number of peons maintained at each of the posts and dispense with a hospital assistant at Chedleth.

No. D. 323-Pl.

True copy forwarded to the Plague Commissioner, with reference to his letter, Ref. on C. No. 3556, dated 23rd March 1899, through the Sanitary Commissioner.

2. The posts which I have established along the Wynaad frontier were selected after personal inspection and local inquiry. These posts have the effect of tying up the arteries of communication. As long as the officers there do their duty, there cannot be any frequent entries into Wynaad from Mysore at other points along the frontier.

TELLICHERRY,
21st April 1899.

(Signed) G. W. DANCE,
Collector.

THE NILGIRIS.

From C. J. WEIR, Esq., I.C.S., Collector of the Nilgiris, to the Plague Commissioner, Madras (through the Sanitary Commissioner for Madras), dated 12th April 1899, R. Dis. No. 53.

In reply to your letter, Ref. C. No. 3556, dated 23rd March 1899, I have the honour to enclose a tabular statement which shows the working of the three road plague inspection camps in this district. No case of plague has been detected at any of the camps, nor has there been any case among those detained or those to whom passports were given. The natural conclusion from the facts above stated is that the district would have escaped plague without these inspection stations, and it may be said at once that the results have not justified the cost as events have turned out.

2. Had, however, plague spread westward from Mysore City, which was quite likely, our inspection camps would no doubt have been useful, as there is still plague in Mysore City, though it has decreased lately in a marked degree, I think it would not be safe for the present to abolish these inspection camps. As you are aware one camp, viz., that at Kakanhalla, is likely to be closed temporarily on account of its malarious situation, but in its place it is proposed to open at least three smaller inspection stations, if suitable and effective situations for these can be obtained. I may say that great difficulty is being experienced in this matter.

3. The inspection stations in this district are situated at Kalhatti, Gúdálúr and Kakanhalla, and of all these places it may be said that the nature of the country forces the traffic to converge on these stations. This is true of cart traffic for all three stations and it is true to a certain extent of passenger traffic for Kakanhalla and Gúdálúr. The sites for these inspection camps were chosen after long and anxious deliberation and in consultation with planters who know the country thoroughly, and I am convinced that for protection against plague in Mysore no better sites can be selected.

4. Referring to paragraph 3 of your letter, I beg to state that no observation circles ever were created in this district, and I would invite your attention to my predecessor's (Mr. Butterworth's) letter to the Plague Commissioner, Ref. on Cur. No. 653, dated 5th October 1898 (printed in the Proceedings of the Plague Commissioner, No. 707, dated 22nd November 1898) on this subject. With a large population of European planters, vitally interested in keeping out the plague, we can no doubt dispense with inspectors and supervisors, and I do not think they will ever be needed here. If, however, there is a recrudescence of plague in Mysore after the monsoon sets in, and when the coolies return from Mysore to the Wynaad, I intend to propose an increase of the medical subordinates in the Nilgiri-Wynaad and to distribute these men throughout the taluk with disinfectants, so that they may be able to take immediate steps to stamp out the disease if it appears among the coolies on the coffee estates. The planters in the Wynaad will, I have no doubt, be able to secure evacuation among their coolies, and the Deputy Tahsildar will be able to deal with the remainder of the inhabitants who are few in number.

5. I think some reduction may be made in the establishment at the Kakanhalla camp, but the saving would be small, and I do not see any other source of saving possible if the three camps are maintained, as I consider they should be. In conclusion, I would point out that it is specially important to keep plague out of this district which is a sanitarium for a large part of India and that all possible precautions with that object should be taken.

SALEM.

From R. B. CLEGG, Esq., I.C.S., Acting Collector and District Magistrate, Salem, to the Plague Commissioner, Madras (through the Sanitary Commissioner for Madras), dated 20th April 1899, No. 794-Plague.

With reference to your Proceedings, No. 3556, of the 23rd March 1899, I have the honour to forward copies of my Sub-Collector's and Special Plague officer's reports on this subject.

2. I agree with Captain Ffrench that our road frontier stations have not been a failure. Although Hosúr town was in constant communication with Bangalore and but 25 miles distant, yet it was the last town to become infected and then not from the Mysore Province.

Zuzuvada, the frontier station on this road, was by far the best.

Evasions are easy and common and the stations are not of much use to prevent intercourse between neighbouring frontier villages.

Strangers from a distance leaving an infected locality, as for instance Bangalore City, with their household goods and people actually stricken with plague must, however, necessarily pass along the roads. Such people are caught by our frontier stations and their goods disinfected. Another point in favour of these stations is that their very existence deters people from travelling into and from an infected area.

I would maintain the frontier stations on the main roads as before in case Bangalore and the districts of Mysore bordering Hosur become again infected.

With regard to closing temporarily the frontier stations from Gammalapuram to Kagganur, I would wait a little while longer until Anekal and Hoskote taluks become free. Then they may be temporarily abolished. Kagganur I will, however, abolish at once, as very few passports are issued there, and the hospital assistant in charge has resigned. The guards can be utilized elsewhere or sent back to ordinary duty.

The ghât stations should remain for the present.

3. I do not approve of leaving entirely the guarding of the frontier to village munsifs of frontier villages. Except on the main roads they may be utilized with advantage without extra remuneration as certain of them have already been utilized. We must rely chiefly on the good sense of the people themselves to keep out and isolate strangers from infected localities coming by by-paths and tracks across the frontier. I believe that after past experiences the people will be all the more careful to keep out strangers and we shall have even greater assistance than hitherto.

4. As regards observation circles and groups, I do not think we can increase the size of the circles or diminish their number with safety. When plague actually breaks out it has been found absolutely necessary to form smaller circles (preventive circles).

I do think, however, we can reduce the cost of this establishment very substantially.

At present the temporary circle sanitary inspector gets Rs. 40 *plus* Rs. 30 allowances. One of the best men in this district is when at home a sub-registrar's clerk on Rs. 15; others are watch-makers, book-sellers, copyists, union clerks—men unable to get Government appointments attracted by a magnificent salary. Most of them are consequently very unsatisfactory servants. I think land revenue clerks or other Government or Local Fund subordinates might be found and trained locally at half the cost, and my opinion is that they would be more under control and we should get better work from them. The present class of supervisors has worked excellently and I cannot suggest an improvement especially when plague actually breaks out. Men of the Deputy Tahsildar's grade would do well enough, but I doubt whether they would be satisfactory during a serious epidemic.

The present staff should not be reduced at present, though later the preventive circle inspectors may be dispensed with and perhaps the number of supervisors may be reduced.

5. Captain Ffrench, Special Plague officer, and the additional medical officers have worked very hard, though the latter are very much handicapped by not knowing the language or the people they have to deal with.

ENCLOSURES.

From Captain T. FFRENCH, Special Plague Officer, to the Collector of Salem, dated Hosur, 15th April 1899.

In reply to your endorsement on Plague Commissioner's No. 3556, dated 23rd March, regarding working of frontier stations and suggesting the withdrawal of the line of defence to the ghâts, I have the honour to report as follows.

The attached statement will show you clearly the number of passports issued at different stations since the beginning of plague operations to the 1st April this year. From records in my office I find that the following evasions have taken place :—

- (i) Between Gummalapuram and Kottagondapalli on either side of Kunmaravapalli, a distance of about 14 miles, 134 people have evaded.
- (ii) Between Kottagondapalli and Zuzuvada, 2 miles, 6 people.
- (iii) Between Zuzuvada and Kagganur, 6 miles, 62 people.
- (iv) Between Kagganur and Bagalur, 4 miles, 2 people.
- (v) From thence eastward to Berikai, 7 miles, 4 people.

These numbers include people who have been issued passes by village munsifs along the frontier, those who have been found at various shandies without passes, and individuals here and there who have been caught in the eve of evading frontier stations while close to them and who have been prosecuted.

2. I think you will see from this that, on the whole, considering the number of passports that have been issued within the last seven months at different stations and the number of people who have got through between those stations—although perhaps it has not been an effective means of stopping the disease getting into this district, it has at least kept a large percentage of people observed as they crossed our frontier, the intimation of whose advent has been sent to their destinations previous to their arrival to enable their being further observed there. When you look at the total number of imported cases from Mysore, viz., 33 up to 1st April, and note that thirteen of these were actually stopped at frontier stations and villages as follows—Zuzuvada 7, Gummalapuram 1, Bagalur village 1, Kumarampalli 2, Kottakondapalli 2, and that the remaining 20 developed plague after they crossed the frontier and either died or recovered—it shows that the frontier system of defence has worked well on the whole, but in order to attain these results, it has cost a lot of money.

I have no doubt that a great many more cases than we have known nothing of have occurred besides and have been kept dark by village munsifs and not reported to circle inspectors. So all the time, labour and paper spent in sending intimations of arrivals by form C has been wasted. It would have been much better therefore if these intimations had been sent to circle inspectors instead of to village munsifs.

3. I certainly do not think that now plague has practically died out in Bangalore and on the north and north-west frontier, there is any further necessity of keeping up the frontier stations from Gummalapuram to Kagganur, both inclusive, but I think that Bagalur and Berikai stations should still be retained and the latter be brought closer into the village so as to watch the road to Shulagiri.

By abolition of the above stations, I mean withdrawal of the guards and establishment. The sheds might still be retained and be looked after by paid watchmen engaged by village munsifs till they are wanted again.

4. If plague breaks out again in Bangalore I would suggest that the frontier defence be again established by making the village munsifs of all the villages along the frontier from Thalli on the west to Bagalur on the north-east passport-issuing officers and paying them a small remuneration of say Rs. 5 a month each, which I am sure they would willingly do the work for and two toties at Rs. 2 a month each to watch the approaches. There are 26 of these villages, the names of which I can give you at any time if desired.

If the village munsifs at any time detected any cases of plague, they could send them to the nearest frontier station sheds and intimate the same to the medical officer here.

5. At present the above frontier establishments and guards excluding Bagalur and Berikai cost Rs. 455 a month; but by the system I propose it would cost about half this sum. So it may be worth considering. I do not think it is advisable to do without some line of defence at the frontier when there is plague on the other side. That is the reason why I propose for the present keeping on Bagalur and Berikai stations on account of Kolar being infected and people arriving by train therefrom *via* Malur and on account of Masti opposite Berikai being infected.

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From C. G. SPENCER, Esq., Acting Sub-Collector of Salem, to the Collector of Salem, dated 17th April 1899.

With reference to your endorsement Ref. No. 731-P.C., dated 27th March 1899, on Plague Commissioner's Ref. on C. No. 3556, dated 23rd March 1899, I have the honour to submit, herewith, a report from the Special Plague officer in plague divisional charge upon the more economical working of plague preventive measures.

2. I support his proposals to abolish for the present all the frontier road-inspection stations, except Bagalur and Berikai, and to retain the ghât inspection-stations at Royakotta and Kurubarapalli. I consider a sufficiently strong case has not been made out for undergoing the expense and trouble of shifting the Berikai frontier station at this stage to another spot nearer to the Shulagiri road. The station is now on the direct Masti road close to the very frontier. If withdrawn into the interior, the outlying villages will be left unprotected besides two by-paths. It is true there are other foot-paths by which passengers may enter Berikai or join the Shulagiri road, but these may be guarded by systematic patrolling now that the strength of the establishment at this station has been raised to seven.

3. As regards the suggestion to make village munsifs passport-issuing officers for the whole frontier in the event of a recrudescence of the plague in Bangalore, I have to observe that very many of the munsifs of Hosur taluk are illiterate. We should have to compel those munsifs of frontier villages who were ignorant to resign or to take leave. For an extra remuneration of Rs. 5 they would certainly arrange to get the work done somehow by employing literate gumastahs. On the main lines of communication, however, I think it would be necessary to have English-knowing persons and thus for the Mattigiri-Bangalore, Hosur-Bangalore and Malur-Hosur roads it would be necessary to sanction a pay of Rs. 15 each.

4. The ghât-inspection stations must, I consider, be maintained so long as Hosur taluk and Mysore Province are declared infected.

5. The Special Plague officer's letter contains no recommendations regarding the observation staff.

The circle inspectors are so to speak the nerves of the system. Their chief use is, I conceive, to be the means of conveying to the centre of the system the first warning as to the existence of plague. The question is how far they have fulfilled this object and thus justified the heavy expenditure incurred by the maintenance of so large an establishment. At first when plague was at a respectable distance and only a few imported cases were coming over our borders, they caused more alarm among the people than they did good, and I have no hesitation in affirming that we could have got the work of tracing fresh arrivals and keeping fever registers, which is the main object of the existence of these officials, performed far more cheaply and quietly by local men. At the beginning it was noticeable that the first intelligence of the occurrence of a case of plague among the villages of their circles did not always reach us through the circle inspectors. Now they have become familiar with the villages of their circles and the people have grown accustomed to them, the services of the best of these men are decidedly valuable and I would deprecate any idea of disbanding them until twenty or thirty days have elapsed from the last indigenous plague case in the division. For the less immediate future, the value of these men depends on the question how long it is possible for an outbreak of plague to spread in a village unknown to the authorities if the observation staff did not exist. In the larger villages I do not think it would be possible for the authorities to remain long in the dark as to the existence of indigenous plague. In the smaller villages it would not signify much, seeing that the agricultural population have by this time learnt so well the lesson of evacuation and that our main object is to prevent the infection being conveyed to uninfected regions. From the very beginning, the people have made most strenuous efforts to keep out strangers from Mysore from entering their villages, fencing their villages round with thorns and employing private sentinels for the purpose. It is only in cases where their own kinsmen residing in adjoining villages of British territory have been attacked that their caution has been to some extent relaxed. In future years I think we may rely more than ever on their increasing sense of the importance of these preventive measures. When Bangalore next becomes badly infected with plague, I should like to see a trial made of the Plague Commissioner's scheme, mentioned in paragraph 3 of his letter for a deputation on plague duty of a section of the Land Revenue establishment.

6. The salary of the special medical officers imported from England constitutes a very considerable item in the total cost of the present plague preventive measures. The value of the superior medical training of these officers is greatly discounted for

some time at least by their inexperience of the country and of official methods of business and by their ignorance of the vernaculars. In their place, I advocate drawing more largely from the better class of civil apothecaries and civil surgeons so far as such men are available. Their places in rural hospitals might be temporarily filled by hospital assistants, if at least the military authorities are unwilling to lend us supernumerary medical men of the same class and attainments.

VIZAGAPATAM.

From W. O. HORNE, Esq., Collector of Vizagapatam, to the Plague Commissioner, Madras, dated 29th March 1899, Dis. No. 138 P.

In reply to your letter Ref. on C. No. 3556, dated 23rd instant, I have the honour to report that, as there are no road-inspection stations and observation circles in the district such as those referred to in the letter under reply, I have gained no experience and am not in a position to express an opinion of any value.

From Lieutenant-Colonel W. G. KING, M.B., C.M., D.P.H., Sanitary Commissioner for Madras, to the Plague Commissioner, dated 4th May 1899, No. 1401-S.

With reference to your letter No. 3556, dated 23rd March 1899, I have the honour to reply as follows.

Frontier Road Stations.—The necessity for these depends upon the proximity of the infected area to be guarded against. I consider that all main roads used ordinarily for cart traffic between a healthy and an infected area distant ten days average stages (150 miles) from the former, should be guarded. All minor roads immediately serving an infected area within two days' march (40 miles) should be similarly guarded. It is hopeless to make these stations imitate the functions of a cordon: hence, this ruling takes into account the imminence of the danger. When an infected area is supplied with "preventive circles," frontier road stations should be abolished within their limits, provided any modification of additional Regulation No. 34 be in force.

2. I agree with you in thinking the configuration of a country modifies the utility of a frontier road station. Where, under the above rules, the nature of the country facilitates the evasion of a frontier station, I advise the sheds be withdrawn five miles from the frontier to any convenient central spot. This should form the head-quarters of a Circle Sanitary Inspector. Instead of an area of ten by ten miles, his charge should have a front towards the infected area of six miles and a depth of ten miles, or such other modification of area and size as would secure the close examination and the regular patrol of the road, and supervision of villages on each side of it. Where the country is such that traffic converges towards it, the present methods of inspection should be retained.

3. No frontier road station should exist without, "observation circles" at its back, of the ordinary type, to ensure that the passport system is worked (see the result of the opposite system in South Canara) with the possible exception of the Nilgiris, where there are special peculiarities to be dealt with.

4. In no case should a frontier road inspection station, by its strictness of working, be made to approach the character of a "detention camp." Disinfection of the filthy should be required, detention of those actually suffering from suspicious symptoms, and, with discretion, of those who cannot be trusted to give a satisfactory account of their intended movements. It is only when, with mistaken zeal, the local authorities attempt to convert such places into "detention camps" that any serious attempts at evasion are likely to occur.

5. *Observation Circles.*—All the Collectors consulted agree in regarding "observation circles" as necessary, with the exception of Mr. Harding of Cuddapah. That officer's ideas of economy are so pronounced that by convincing himself that he can do without this and without that part of establishments universally recognized as necessary in plague measures, he has brought his arguments to the *reductio ad absurdum* scale of depending upon his "village officers and people." I have no hesitation in saying that to depend upon village officers to report cases, unless kept

up to the mark by a special inspection organization, is against practical experience, not only during the present epidemic of plague but in connection with all epidemic diseases.

6. Results in actual practice have shown that selection of an area of ten miles was judicious. There are, however, less thickly inhabited parts of the country where economy might be secured by a somewhat larger area being given, provided the Collector concerned satisfy himself that the circle inspector can reach each inhabited part of his charge within each five days. This ruling was not correctly applied in at least one district, where the large villages only were visited, and, in consequence, attacks were not recognized in time in the smaller.

7. "Preventive circles" of five miles diameter should invariably be opened round an area in which indigenous plague exhibits itself for a radius of at least 20 miles. Beyond this, again, should be two "observation circles" if not already made. Under existing rules, it seems likely to be forgotten that directly the frontier circles are taken in the rear, a change of organization is necessary.

8. *Suggested changes in organization.*—It is essential that additional Regulation 34 should be so modified that the passport system shall commence at the infected town. Not until fairly driven to this course, on account of the number of the villages attacked, should a large area be declared infected, and thus bring about the absence of surveillance. The argument against this is where no cordon is used (and I think that except in small villages, on first appearance of indigenous plague, it should not be employed) that the system must be useless. I do not see that it would be any more useless, or be attended with any more difficulty than the passport system as a whole. It is always, it seems to me, most undesirable that persons from infected villages should be allowed to wander to healthy villages without any safeguard merely on the ground that both are included in an area officially judged as infected. It has been the blot of the late operations.

9. Far more definite rulings as to the relation of "plague officers" to medical officers than at present exist are, in my opinion, necessary. Confusion of their functions seems to me to exist. For example, in the North Arcot district, staff corps officers were appointed who were directly responsible for plague operations whilst medical officers were at their beck and call for diagnosis. On my writing a report containing very simple sanitary suggestions (notes of inspection of Vellore town) it was referred by the Plague Commissioner to the Collector, without expression of opinion or orders; it was then transferred by the Collector to the Plague officer in charge of Vellore town for report as to the "necessity" and practicability of my suggestions. As to the "practicability" of anything I suggest it is for local officers, with whom responsibility rests, to decide whoever they be; but, when I make suggestions of a sanitary nature, I think their being referred by an officer on special duty in reference to plague (the Plague Commissioner) without orders to the responsible officer of the district, and thence for the opinion of the retired staff corps officer represents a waste of money and energy. If this is the method of disposing of advice offered to Government by its sanitary adviser, it is presumed that suggestions made by District Sanitary officers share the same fate.

10. In lieu of the present want of system, Senior Medical officers of the Indian Medical Service should be selected for charge of sanitary and medical plague administration of districts subject to the Collector. These would be known as District Senior Medical officers. If the permanent District Medical and Sanitary officer were a junior, he should be placed on plague duty in his own district, and either by continuing the same pay, or by special allowance, should suffer no monetary loss. The charge of head-quarters and routine district medical administration should be held by existing Assistant Surgeons, subject to the administrative control of the District Senior Medical officer.

11. The staff of "observation" and its organization would therefore be as at present, but, on plague appearing, Medical officers of the Indian Medical Service would be posted to charge of areas usually not exceeding 800 square miles, under the direct order of the District Senior Medical officer, as "Plague Officers." On the appointment of a Plague officer, the supervisors within the 800 miles area would be dispensed with, and, in lieu, a special Tahsildar would be attached to the Plague officer. If the areas affected become more numerous than the Commissioned Medical

Service members could cope with, Assistant Surgeons of the Military class should be posted to every second area, subordinate to the nearest Commissioned Medical officer.

12. European Medical officers imported under covenant with the Secretary of State should be posted under the direct orders of the District Senior Medical Officer as Assistant Plague officers and should be placed in charge of village disinfection work, plague hospitals, health camps and railway inspection stations, with civil apothecaries or senior hospital assistants as their immediate assistants.

13. *Certificated* (not temporary) Sanitary Inspectors should be in charge of disinfection gangs, subject to the medical officer on the spot.

14. So long as sufficient medical officers are available, civil officers should not be detailed for special plague duty, but would be responsible for aiding, by all means in their power, within the areas under their charge, sanctioned methods of plague administration.

15. Staff Corps officers should not be employed as Plague officers for administrative work, until the supply of both civil and medical officers is exhausted: but they would be useful in charge of conservancy staffs, passport offices, special police duty, erecting camps, and collecting materials, and as pay and store officers in large towns. When the supply of medical officers fails, the work of disinfection of villages would fall to Staff Corps officers.

16. To enable the above suggestion to be put in force, the Military Department should be required to make arrangements more economical of medical officers than at present. To merely ask the Military Department to spare men would be to receive the stereotyped reply of *non possumus*; it can make better arrangements, if it chose to share the inconvenience now pressing upon the civil authorities. For example, the Medical officer, Pailavaram, could easily take charge of the regiment at the Mount; the Fort Medical Officer, or the District Surgeon concerned, could easily take charge of the native regiment in Madras. Mandalay, Rangoon, Secunderabad, Belgaum, Bangalore, Bellary, Barrackpore, Kampti, and Berhampore could all contribute medical officers of the Indian Medical Service, by re-arranging the medical charges, either by handing work to civil medical officer, of stations, or by giving more than one charge to each medical officer, or by handing native troops to the Royal Army Medical Corps: or, the Royal Army Medical Corps could release officers for charge of native troops, by placing European covenanted plague medical officers under the orders of the senior officer of the Royal Army Medical Corps for charge of European troops—a system that would imitate the present mode in England of dealing with detachments by private practitioners. A few Assistant Surgeons of the military class ought also to be available from the Military Department, by supplying civil apothecaries in their places.

17. Where plague disinfection operations are pursued, and sepoys are employed for disinfection, they should be commanded by their own Native or European officers according to their strength. These operations should be fulfilled in accordance with the instructions of the medical officers of not less rank than Assistant Surgeon, the function of the Commanding officer being solely confined to discipline of the men.

18. In their relation to civil authorities of the medical officers under these arrangements, I foresee no difficulty. The regulations have but a limited scope of action, and this is correctly defined. I believe the organization suggested, if worked out carefully, would be cheaper and more efficient than the haphazard method of making appointments now in vogue. By confining administration as far as feasible to medical officers, methods are more likely to suit sanitary requirements throughout the affected districts, and to be conducted on a uniform plan; by securing that officers of the Indian Medical Service who are accustomed to deal with the people, are placed in direct contact with them, the young men sent from England will be devoted to plague work of a nature where guidance would always be available. The Collector's position and responsibility is sufficiently secured by the Senior Medical Officer being subject to him, although the latter would retain his usual right of representing facts to the Sanitary Commissioner, for representation to the Plague Commissioner, if he so chooses.

19. As to the change of organization in the interests of economy that have been suggested, I think the tenuity attempted by Mr. Harding need not be discussed. It is not the absence of arrangements that, so far, has protected his district from plague, but merely that traffic from infected areas is probably small. Mr. Harding's equanimity in the opinion that he can "reckon with perfect safety upon village reddies reporting plague cases as they occur," is likely to receive a rude awakening, should villages near the Mysore borders, where inter-marriages with the Cuddapah people have taken place, become affected.

20. In the case of Anantapur, I hold that the action already taken of abolishing observation circles in areas that have recently been indigenously infected, is most ill-advised. Special care in dealing with sporadic cases when the epidemic is on the decline, would give us a better chance of not meeting with a recrudescence. The Bellary suggestion of abolishing the observation circles bordering on the Mysore frontier seems to me a somewhat premature action; but has far more reason to support it than the action of Anantapur and Cuddapah.

21. The Salem suggestion as to entertaining extra village servants, and between these and the village heads dividing the responsibility of guarding the frontier, I think, should not be entertained. I would rather see the frontier left unprotected, and trust entirely to observation circles than enter into an arrangement which affords low-paid men the chance of extortion.

22. I consider the appointment of Personal Assistant to the Collector would not be necessary if the District Senior Medical Officer acts under him; the Collector's plague office staff would be amalgamated with that officer's.

23. The appointment of Special Deputy Collectors seem to me sheer waste.

24. As to European or Eurasian nurses attached to ambulance staffs, I think at least one essential. Native nurses cannot be relied upon in diagnosing cases in houses. They would suffice for hospital work.

25. The agreement with the opinion expressed by the Plague Commissioner that Revenue Inspectors should take the place of Sanitary Inspectors, seems to me to be founded upon nothing better than the unconscious exhibition of preference by civil officers for men of their own department as subordinates. I can find not a single solid fact on which the preference rests. One Collector sneers at the fact that some of the Sanitary Inspectors were drawn from those who had failed to enter Government employ, and had taken to the not dishonest profession of watchmakers, registrar's clerks, &c. Yet, as to their general educational status the temporary Sanitary Inspectors do not compare badly with the Revenue Inspectors he would prefer. Thus,

B.A.	..	..	..	..	1	the last batch trained by me had passed the marginally-noted educational examinations. Mr. Harding has attacked their knowledge of sanitation, by declaring that, when he asked one of them what he knew of sanitation, he replied that he knew "all about earth, air, fire and water." He referred to this joke at a public meeting. The reply, doubtless, sounded to him as savouring of the study of the elements of the pre-alchemy days: yet, as the humble individual who was responsible for drumming into that man
F.A.	..	..	..	..	2	
Matriculation	..	..	..	..	24	
Upper Secondary	..	..	..	..	1	
Public Works Department Upper Subordinate Test	..	..	..	..	1	
General Test	..	..	..	..	1	
Hospital Assistant	..	..	..	..	2	
Men who awaited results of the Matriculation examination	..	..	..	..	5	
Failed Matric.	..	..	..	..	1	
Middle School	..	..	..	..	8	
Unpassed men	..	..	..	..	8	

all he knew about "earth, air, fire and water," I have no hesitation in saying that had the position of the examiner and examinee in this instance been reversed, it would have dawned upon Mr. Harding that to know "all about" these would satisfy the most greedy of sanitarians. No doubt Mr. Harding could have improved upon it: but it was upon the inter-relation of these that I gave my opening lecture to these students. Although Mr. Harding decries their knowledge, his acquaintance with what Sanitary Inspectors know of sanitation literally begins and ceases with this tale. He never saw them dealing with a plague case. Then Mr. Batten has attacked their "intelligence and tact". But, when asked for concrete instances, after delaying a reply for weeks, and taking care when he did reply to shelter himself

under the Plague Commissioner, he could quote but one case. The act he refers to was stupid and unwarranted, but belies, in the most positive manner, the want of influence over villages, which is held to be another fault of Sanitary Inspectors. He declared that Revenue Inspectors had learned all that was requisite in his opinion as to sanitary matters from circulars issued by him: yet, copies of these show that, though in the interval of delay mentioned he had issued a useful circular, anything prior to date of his making this declaration contained sanitary information of practically no value.

Mr. Elwin suggests that, with a single exception, the Sanitary Inspectors never brought plague to his notice. This instance was at Kúdligi and, although he does not say so, it indubitably illustrates both "tact and intelligence" of the reporter. But Mr. Elwin has forgotten facts. In a report signed by himself, he shows that the first intelligence of the outbreak at Molagavalli was given by the circle inspector in spite of concealment by the acting village reddi. The death in the Kamalapur road was likewise reported by the sanitary inspector. The case of Itigi was also reported by the Sanitary Inspector, although a Revenue head clerk had pondered in doubt. The outbreak at Peddahotur, although reported by the Deputy Tahsildar, had clearly been discovered by the Sanitary Inspectors; as the reporter states he found him on the spot attending to segregation requirements. In short, where circles were opened and plague occurred, Mr. Elwin has no reason for suggesting failure of reporting; although in reading his Tahsildar's reports, the fact of the Plague Inspector being on the spot when they arrived is not enlarged upon.

26. To justify a change, it ought to be possible for the Collectors to point to the failures of sanitary inspector. But this they cannot do. The system taken as a whole has worked well: and, in fairness, it should be remembered it did so at the most difficult stage of operations, namely, when the people of this Presidency were filled with rumours of wrong doing in Bombay, and when all plague operations were regarded with dread. At that time civil officers had little personal knowledge of plague measures, but they were supplied by this office promptly with an executive subordinate staff that did know a good deal on the subject and that, if not perfect, they have at least failed to prove anything against. If these Collectors will but read of the makeshift staffs employed in other Presidencies, they ought to be thankful they were relieved from the unenviable position of dealing with such material.

27. So far as I could ascertain, there was little stomach for plague operations amongst district Revenue executive staffs, until these men trained by me (and able to gauge correctly the extent of personal danger) showed the example of volunteering for plague duty. Looking back, I believe, that unless these men had been supplied by me, the organization required by the rules could not have been worked.

28. In the way that "local knowledge" shall take precedence of sanitary knowledge, I see nothing but the usual layman's tendency to ignore the value of sanitary action. Mr. Macleod, however, meets the merits of the case fairly, by pointing out that the "influence" of the Revenue Inspector must disappear the moment he is placed on special duty; the truth being that neither the ryot nor the reddi would submit to the "influence" of two Revenue Inspectors. It is certain these men could not do both revenue and plague duty at the same time efficiently, although the readiness with which the Revenue Department is willing to part with experienced Revenue Inspectors wholesale, does not look as if the "local knowledge" were of much value from a revenue point of view. The short and the long of the matter is, that if these men possess power, they can perfectly well throw it into the scale of Sanitary Inspectors without taking the sanitary duty themselves; and, if the Collector believing in their influence, impressed this fact on the Revenue Inspectors, its full value would be realized.

29. The Plague Commissioner claims for Revenue Inspectors power in persuading ryots to evacuate villages. I would, however, point out that when the question of evacuation comes into the sphere of work, it is well known that it is not the Revenue Inspector who is of utility, but the Tahsildar, or higher Revenue officers.

30. I believe that a vast deal of good has been done to the affected districts, by scattering over them men possessed of at least some knowledge of the sanitary bearing of plague, capable of persuading the ryots as to the efficacy of evacuation and of

other action necessary. Infinitely more good, in my opinion, must have been done in this direction than has been recognised by Collectors. Further, I know, as a fact, from perusal of their diaries, that a vast deal of solid good by improving the sanitation of villages has been effected by the personal influence of no one else than the despised Sanitary Inspectors. Let the opposite condition of affairs be imagined. Had Revenue Inspectors untrained in sanitation been sent amongst the villagers, what more could they have preached than that it would be *unsafe* to go against the Collector's wishes; they could not have explained the reasons for sanitary methods, which they themselves did not understand. The ryots would have then seen nothing but the compulsion of Government, and all Revenue officers would have been its instruments. Revenue officers would then have lost the confidence which the posing as persons not *directly* concerned in plague operations, must undoubtedly give them.

31. Finally, it should not be forgotten that local knowledge is not everything in "plague operations"; the fact that epidemic disease is being dealt with should not be lost sight of. I have yet to learn that sanitary preparation of threatened areas is not requisite.

32. But I ask it to be distinctly understood that if my endeavours in providing temporary Sanitary Inspectors for districts be held a failure, there is no reason why a preference for men ignorant of hygiene be given. In not a single instance have complaints been received against *certificated* Sanitary Inspectors. Of these 66 were employed against 127 men hastily trained for temporary work, to make good the deficiency in numbers of the former. These men have paid for their education in the Medical College, and have taken to sanitation as a profession. They hold their certificate subject to their good conduct, and this is a sufficient guarantee for their good behaviour. There cannot be the slightest doubt that, as a class, they are infinitely better suited for plague duty than Revenue Inspectors. The men engaged temporarily were simply "stop-gaps," until a further supply of certificated Sanitary Inspectors should have passed through the Medical College. One hundred and thirty-eight candidates for certificates have recently undergone examination, after completion of a full course in theoretical and practical sanitation and physiology. Would it not be, morally, a gross breach of faith with these men, who have made executive sanitary work a profession, that they be thrust aside, for no better reason than Collectors preferred to work with Revenue Inspectors? Is this movement towards founding a sanitary service for the Presidency, that has been built up through many difficulties for the last five years, to be crushed out of existence, to make room for the laymen's preference for tools that he has been accustomed to work with? I consider such a movement most unjust, and the policy that dictates it to be short-sighted in reference to the future, and I earnestly ask that Government do not permit it, and request that this particular point be settled by Government and not the Plague Commissioner.

33. Mr. Elwin points to a compromise. He supports the Plague Commissioner's claims for Revenue Inspectors, but suggests that they undergo training (and, I say, examination) of the same class as that undergone by temporary Sanitary Inspectors before they were entertained. If this be conceded, I would go further, and say, let the Collector of a district nominate for training *any* person (Revenue Inspector or not) he chooses, provided he has passed the Matriculation examination; but, so long as my office is able to provide *certificated* Sanitary Inspectors, *these should invariably be first absorbed*.

34. As for the training of temporary Sanitary Inspectors, it is not a function of my office, and, according to Mr. Harding, is not one that can be fulfilled by it up to the standard desired by civil officers. At the same time, I demur, with all due humbleness, to the opinion that the circulars issued by Collectors, which are extracts from various sources, give an education one whit better. The training ought to be conducted on a uniform plan, so that methods do not differ in districts. Hence, a single medical officer should be deputed for the work by Government.

35. The further suggestion to give the Revenue Inspectors all the "soft" places, that is circle work, and give to Sanitary Inspectors nothing but disinfection—that is, all the hard, dirty, and dangerous work—is unfair, and I trust will not be allowed. If the Revenue Inspector is anxious to do executive sanitary work, let him remember the proverb *ne sutor ultra crepidum*.

36. To give a chance for full expansion of inoculation, I am still of opinion that at least a couple of lady doctors should be attached to my office.

37. I think the principle of dealing with, or (as it amounts to) the attempting to deal with, all "contacts" on the basis of segregation, is wrong, and is one which is likely to wreck all preventive measures. No contact should be segregated, whether inoculated or not, if the local authorities consider him trustworthy as to not absconding. A contact of a *trustworthy class* should, after disinfection, be treated under a modified passport system.

38. In the case of the Nilgiris, rigid observation circle of the usual area may not be necessary, but the principle of *special inspection* should be definitely recognised. As already suggested in this office letter to Government, No. 1163, dated 26th May 1898, paragraph 4, planters should be required, under the Epidemic Diseases Act, to report arrivals and departures. The Nilgiris occupy geographically as to infected areas, and climatically, a suitable place for invasion by plague. It is no use trusting solely to protection from attack, by the use of Road Frontier Inspection stations.

39. The replies to your reference No. 3556, dated 23rd March 1899, from Collectors concerned are herewith returned.

ORDER—No. 878 P., dated 12th June 1899.

The papers read above relate to the working of road frontier inspection stations and observation circles. They also contain proposals for reduction of plague expenditure.

2. *Road Frontier Inspection Stations*.—The Government concurs with the late Plague Commissioner and the officers consulted by him in considering that, unless these stations are really efficient, it is best to do without them. In open country they can easily be evaded, and it is impossible to find a sufficiently large and trustworthy staff to patrol the numerous cart-tracks and footpaths that cross the frontier and to catch the people who try to avoid the inspection stations. The Government, therefore, resolves to abolish all stations which do not serve their purpose or which are too remote from the plague-infected localities to be of practical use. Under this class may be included—

- (a) the road inspection stations in South Canara;
- (b) the six stations on the Mysore frontier of the Bellary district;
- (c) the six stations on the Hyderabad frontier of the Kurnool district.

The stations in South Canara have been already ordered to be closed and the others may be abolished at once. For the special reasons given by the Collectors, the closing of the stations at Hosur and Griyapuram in the Bellary district and the station at Kagganur in the Salem district is also sanctioned. The stations in the North Arcot and Salem districts are in open country, but as special measures are taken to patrol the bye-paths, they may be continued with the exception of Kagganur as long as there is plague in the adjoining taluks of the Mysore State. No change is at present required in Malabar, the Nilgiris and Coimbatore, where the stations are reported to be generally efficient.

3. There are thirteen road inspection stations on the Tungabhadra in the Bellary district, and as they are found useless at present in consequence of the river being fordable, the Collector suggests that they may all be closed till the end of June when the river may be expected to be in freshes and that such of the stations as then seem required may be re-opened. It is too late now to sanction this proposal. The existing stations may be continued till the end of this month, when the Collector should report which of them should be retained and which may be abolished. The continued existence of plague in the Hyderabad territory on the other side of the Tungabhadra should lead the Collector to be specially careful in making his recommendation.

4. *Observation Circles*.—These are circles of five miles radius organized in two rows along the frontier in the districts declared to be under observation. Each circle is in the charge of a plague inspector drawing a salary of Rs. 40 or Rs. 45, with a

horse allowance of Rs. 15 and a fixed travelling allowance of Rs. 15. It is the duty of the plague inspector to patrol his circle systematically in order to gain the earliest possible information of a case of plague, to check the possession of passports, and to keep a record of all persons suffering from continuous fever for more than twelve hours. Most of these inspectors were men without much experience and not acquainted with the districts to which they were sent and the Government is very doubtful whether the results obtained from the observation circles as worked by them have been commensurate with their cost. Financial considerations make it impossible to maintain for an indefinite period such large special establishments for its prevention as at present exist. In the existing village and revenue officers there is an indigenous and normal agency which is fairly reliable, economical and easily worked, and on them the chief reliance must be placed for obtaining information regarding plague and for the proper working of the passport rules. Both they and the people have now become acquainted with plague and the correct mode of dealing with it, and much greater assistance may be expected from them than was the case in last year. Under these circumstances, His Excellency the Governor in Council considers that while these observation circles should be retained for the present in the districts of Salem and North Arcot, they should be abolished on the Mysore frontier in Bellary and on the Hyderabad frontier in Kurnool. The circles should also be abolished in Anantapur. The proposals of the Collector of Bellary to withdraw half his sanitary inspectors constituting one circle out of every two now existing is sanctioned, with reference to the circles existing elsewhere than on the Mysore frontier. No increase of the existing revenue establishment seems at present needed, but in future in taluks which are imminently threatened with plague when there are no observation circles and where there is reason to believe that the passport rules are not properly carried out, special revenue inspectors may, with the previous sanction of Government, be appointed as suggested by the Collector of Cuddapah.

5. *Preventive Circles, i.e.*, the circles of five miles *diameter* round places infected with indigenous plague may continue pending further orders. Such circles are now being worked in the districts of Bellary, Kurnool, Anantapur and North Arcot, and the Collectors of these districts are requested to submit a special report showing their cost, the staff employed and the practical results obtained. These circles may probably with safety be abolished now in Anantapur, Bellary and Kurnool except round Alūr and Pattikonda. The recommendation of the Sanitary Commissioner that beyond the preventive circles there should be two observation circles is not approved.

6. *Plague Supervisors*.—Where the observation circles have been ordered to be abolished, these supervisors will be unnecessary and should be dispensed with. Collectors are requested to give the Board of Revenue (Separate Revenue) timely intimation of the dates on which the officers of the Salt and Abkārī Department now employed as supervisors will be relieved of their plague duty.

7. *Nurses*.—As a rule it is not necessary to employ European or Eurasian nurses except when European patients are likely to come up for treatment or in places where plague has established itself and regular plague hospitals have been opened. On the ambulance staff, trained native nurses will be found more useful. Additional Mufassal Regulation 9 will therefore be amended by substituting the words "two trained nurses" for the words "two trained European or Eurasian nurses," and it will be left to the Collectors to employ qualified European or Native nurses as occasion requires and on such rates of salary *not exceeding Rs. 100 a month* as may be necessary. The boarding allowance of Rs. 1-8-0 a day sanctioned in G.O., No. 455 P., dated 9th May 1898, should be paid to European or Eurasian nurses only when they attend on plague patients. In the case of natives, it may be reduced to one rupee a day.

8. *Railway Inspection Stations*.—Another direction in which plague expenditure may be reduced is the reduction of the number of railway inspection stations. It is advisable, in view of the grave inconvenience caused by these stations, that they should be as few as possible. The stations at Pakāla, Tiruvannāmalai and Chingleput were opened at a time when plague was spreading in Mysore and North Arcot. The epidemic has now subsided and the necessity for these stations no longer exists.

The inspection station at Kondapalli is also not required. It has been in existence for about two years; no case of plague has yet been detected there and it is far removed from the infected districts of His Highness the Nizam's dominions. The Government is therefore of opinion that these four stations may be closed for the present.

9. In all cases where road or railway inspection stations have been ordered to be closed, the existing sheds should be retained in view to future requirements and left in charge of the village officers or of special watchmen. Where they are not worth keeping, they should be dismantled, and the materials utilized for other public purposes or sold by auction. Officers relieved of their plague duty should revert to their permanent appointments. As regards sanitary inspectors, these men were temporarily employed and, when no longer required, their services will be dispensed with like other men similarly engaged temporarily for plague duty.

10. *Notification of infected areas*.—The Government agrees with the Sanitary Commissioner that it is unnecessary to notify a whole taluk as infected with plague when only a small portion of it is affected. In the latest notification issued in G.O., No. 794 P., dated 29th May 1899, only the places actually infected have been included.

11. *Changes in Plague Administration*.—In paragraphs 10 to 18 of his letter, the Sanitary Commissioner makes certain proposals, the object of which is "to confine plague administration as far as feasible to medical officers." The Government considers them to be not feasible. They are to some extent opposed to the instructions of the Government of India contained in its letter printed in G.O., No. 1023-P., dated 7th September 1898. Dr. King's remarks in paragraphs 22 and 23 of his letter appear to be due to misapprehension of facts. The Personal Assistants to Collectors were appointed to relieve them of their ordinary routine work and not for the execution of plague work themselves. There is, no doubt, that the Special Deputy Collectors have been of much use to the Collectors.

12. *Inoculation*.—The Government is unable to sanction Dr. King's application for two lady doctors, as there is hardly any demand at present for inoculation.

13. *Segregation of contacts*.—The Government observes that the question raised in paragraph 37 of the Sanitary Commissioner's letter was negatived by the Plague Commissioner in his Proceedings, No. 1027, dated 27th December 1898.

(True Extract.)



for Ag. Secretary to Government.

To all Collectors (A—I).
 „ the Sanitary Commissioner.
 „ the Surgeon-General.
 „ the Financial Department.
 „ the Public Department.
 „ the Revenue Department.
 „ the Public Works Department (Railway Branch).
 „ the Commissioners of Land Revenue.
 „ the Commissioner of Salt, Abkārī and Separate Revenue.
 „ the President, Municipal Commission, Madras.
 „ the Resident in Mysore, with covering letter.
 „ Railway Administrations.
 „ the Deputy Adjutant-General, Madras Command.
 „ General Officers Commanding Districts.
 Gazette.

When given for copying _____
When copied _____
When examined _____
When signed _____ } 189 .

READ AGAIN G.O., No. _____, DATED
189 .

APPENDIX.

NOTIFICATION.

In exercise of the powers delegated to him under the Epidemic Diseases Act, 1897, His Excellency the Governor of Fort St. George in Council directs that Regulation 9 of the Regulations published on pages 55—64 of the *Fort St. George Gazette*, dated 1st March 1898, Part I-A, be amended by substituting the words "two trained nurses" for "two trained European or Eurasian nurses."

CURRENT No.

ENCLOSURES TO C. No.

ORDER OF GOVERNMENT A A A A A A A

LETTER OF GOVERNMENT.

STATEMENT WITH DETAIL.

PAPERS NOT FILED UP, BEING KEPT FOR DISPATCH
IN ORIGINAL.

N.B.—

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- Q = Copy heading only.

