

Report of the smallpox commissioners, appointed by government : with an appendix, Calcutta, 1st July 1850.

Contributors

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REPORT
OF THE
SMALLPOX COMMISSIONERS,
APPOINTED BY GOVERNMENT
WITH
AN APPENDIX,
CALCUTTA, 1ST JULY 1850.

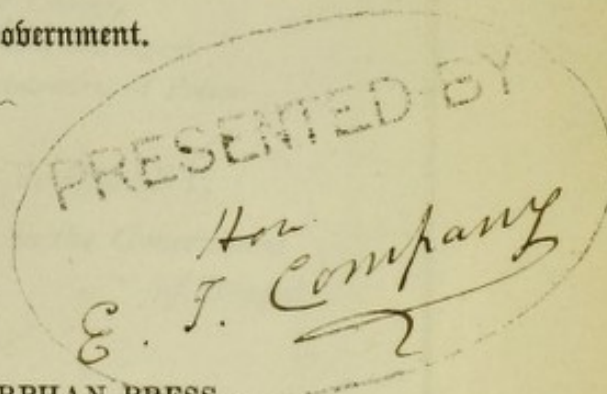
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1850.



REPORT

SMITHSONIAN COMMISSIONERS

APPOINTED BY GOVERNMENT

ANALYSIS

COMMITTEE REPORT

Presented to the Senate

1880

U.S. GOVERNMENT PRINTING OFFICE

1880

EXTRACT

FROM

GOVERNMENT GENERAL ORDERS,

Fort William, 12th March, 1850.

“ APPOINTMENTS BY THE HON’BLE THE DEPUTY GOVERNOR
OF BENGAL.

“ The following Gentlemen to be a Committee for
the purpose of enquiring by what means the exten-
sion of Smallpox can be prevented, or rendered less
destructive.

- “ SENIOR SURGEON GEORGE LAMB, - *Physician General.*
- “ SENIOR SURGEON JOHN FORSYTH, - *Secretary, Medical Board.*
- “ SURGEON DUNCAN STEWART, M.D., *Superintendent General of Vaccine
Inoculation.*
- “ BABOO RUSSOMOY DUTT, - - - - *Judge of the Small Cause Court.*
- “ PUNDIT MODOOSOODUN GOOPTO, - *Lecturer on Anatomy in the Me-
dical College.*
- “ BABOO RAMGOPAUL GHOSE, - - - *Merchant and Agent.*
- “ MR. W. T. LAW, - - - - - *Superintendent of Police.*

“ (Signed) J. P. GRANT,
“ *Secretary to the Government
of Bengal.*”

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REPORT.

THE SPECIAL COMMITTEE appointed by Government on the 12th of March 1850, for the purpose of "enquiring by what means the extension of Smallpox can be prevented, or rendered less destructive," and who were empowered to Report thereupon, have endeavoured, by examination of witnesses, and by addressing circular sets of Queries in printed forms, (Appendix page xxvii) to a number of Professional and other persons in different parts of the Town and Country; *First*, to obtain full and authentic information relative to the appearance or manner of Introduction of the Disease into Town, and the Mortality caused by it among different Classes of the inhabitants in different Localities; *Secondly*, to discover the circumstances which seem to have favored or promoted the Spread or Extension of the Disease among the population; *Thirdly*, to ascertain the efficiency or otherwise of the means now employed to Lessen or Prevent its destructiveness; and *Fourthly*, to enquire into the expediency of abolishing Smallpox Inoculation (as being often useless to the individual seeking this protection, and always fraught with danger to the public,) and to suggest Measures calculated to promote the more general adoption and better success of Vaccination.

2. A mass of written evidence on these heads, obtained from the Offices of the Medical Board and of the Superintendent of Calcutta Police, from the Medical Officers of several of the large Dispensaries and Town Hospitals, from Civil Surgeons and Sub-Assistant Surgeons in charge of Jail Hospitals and Dispensaries in the Mofussil, from the Pundits of the Colleges of Nuddea and Benares, the Sanscrit College of Calcutta, and the Sudder Court of Dewanny Adawlut, are given at full length in the Appendix.

3. After carefully analysing and considering the evidence before them, the Committee have unanimously agreed to the following REPORT.

History and Statistics.

4. Within the last 18 years, the Smallpox appears to have visited Calcutta in an Epidemic form not less than four times, each Epidemic lasting for about 12 or 16 months; while during the intervening period the complaint seemed to almost entirely disappear.

Its sudden re-appearance so often in a populous and wealthy city, at a particular season, and when the surrounding villages were perfectly free from the disease, would lead to the suspicion that the occurrence has not been wholly owing to accidental or natural causes.

5. The present Epidemic has very far exceeded all its predecessors both in fatality and duration.

That of 1832-33 carrying off 2,814 in 16 months.

of 1837-38	ditto	1,548	ditto.
of 1843-44	ditto	2,949	ditto.
of 1849-50	ditto	6,100	ditto.

Throughout its progress, however, it has preserved a striking analogy in all its leading features to the three preceding Epidemics, which furnishes the hope that it is now (1st July) on the decline, and will speedily disappear from among us altogether: yet it must be owned that a very general and profound anxiety still prevails regarding the Causes of its exceeding violence and mortality on this occasion, not unmixed with an apprehension lest the Disease should be about to become permanently domiciled in this city, and its inhabitants be left without any adequate protection against it. Nor can this panic be wondered at, when the fact is known that during the past 18 years (a period which included no less than three violent and fatal Epidemics) the average annual mortality, by Smallpox in Calcutta, did not exceed 581, while the deaths caused by that disease alone during the three months of January, February and March of the present year amount to 3,329, among a Native Population estimated at 387,398.*

6. The commencement of the present Epidemic in Calcutta may be said to date from the occurrence of eight fatal cases in the month of November 1848. Not a single casualty from the complaint had taken place in the preceding month, only four in September, and but

* *Cholera and Smallpox in Calcutta*:—"The Indian papers state that the "Smallpox and Cholera have occasioned great mortality at Calcutta. It is a "singular proof of the utter indifference to human life which is characteristic "of the East, that an Epidemic, whose ravages would throw London into "consternation, has scarcely been noticed even in the public journals. Estim- "ing the destruction caused by the Smallpox at 400 a week, which we believe "to be under the truth, the number of deaths in the British metropolis would "be, allowing for the difference of population, 2,800 a week, and we need not "say that such an entry in the bills of mortality would throw the population "of London into a frenzy of terror."—*London Medical Gazette*, 17th May, 1850.

two in August. It became a matter of much interest to trace, if possible, the history of these eight cases so as to ascertain whether or not the disease was brought into the town by casual immigrants, or by the Inoculators; or whether it burst out suddenly in some of the many filthy purlieus of the Native town, where the seeds of that and every other pestilence find constant shelter: all that we have been able, however, to learn regarding them is the following particulars:

Names.	Years of Age.	Residence in Calcutta.	Caste.	Duration of illness.
1 Soores Chunder, - - -	3	Simlah, - -	Koyisto,-	14 Days.
2 Issur Chunder, - - -	30	Simlah, - -	Koyisto,-	9 Days.
3 Woma Churn, - - -	16	Amratollah, -	Brahmin,	15 Days.
4 Coylash, - - - - -	50	Simlah, - -	Koyisto,-	11 Days.
5 Tobeeboolah, - - -	12	Mirzapore, -	Sheike, -	22 Days.
6 Beebee Bunnoo, - - -	20	Machoa Bazar,	Sheike, -	15 Days.
7 A Child, - - - - -	1	Mirzapore, -	Sheike, -	14 Days.
8 Tunnoo, - - - - -	8	Sootanooty, -	Sheike, -	5 Days.

As respects the *Origin* of the complaint however, the Committee do not concur in the opinion "that Smallpox breaks out *spontaneously* in all parts of India every year," for although it has not been found possible to ascertain whether these eight individuals, and others who probably had the disease at the same time, but in a more favourable form, were Inoculated for it, or contracted it naturally, that is to say, by direct contact with individuals affected, or by the indirect agency of the infected atmosphere, the majority of the Committee incline to believe, with the great Boerhave, that "Smallpox is, in all cases, the produce of a specific poison derived from some one already laboring under the malady," which poison may remain for

a length of time dormant or latent till particular circumstances favour its development.

7. Whether this view of the *Origin* of Smallpox be correct or otherwise, abundance of evidence has been laid before the Committee to shew that as well by INOCULATION, by CONTAGION and by EPIDEMY the disease was subsequently diffused, and that it proved extensively and equally fatal in whatever mode produced. Indeed, the very rapid spread of the disease after its appearance in town as indicated by its daily increasing mortality, is not to be accounted for by reference to any *one* of these three Causes singly; and the Committee have anxiously endeavoured, by collating the evidence before them, to estimate, rather than to decide positively what share each of the three abovenamed Causes may have had in establishing and spreading the disease among different classes of the inhabitants.

8. Mr. Daly, who is House Surgeon of the Medical College Hospital and in charge of the Out-door Dispensary attached thereto, and who has thus had the best means and opportunities of studying the character and progress of the Epidemic among the middling and lower Classes of inhabitants in that populous neighbourhood, reports that the disease made its first appearance thereabout in the beginning of November 1849, but was known to have been prevailing in the Native part of the town for months previously, having travelled westward through Jessore, over a large tract of country between Calcutta and Dacca, in which city, according to Dr. Wise's interesting Statement in the Appendix, (page cxxii) it has made extensive ravages.

9. The Cases which occurred in November were chiefly of the malignant and confluent form, but the Disease at that time was confined to individuals among the poorer Classes of Natives who were *unprotected* by any previous prophylactic. It soon however began to spread more generally through all ranks of the Native population, and in the early part of December made its appearance among the lower order of Portuguese Christians residing in Sibtollah, Coolootollah, Mirzapore, Mullungah, and the various lanes and gullies in the vicinity of Bow Bazar, a class of persons whom Mr. Daly states, from his own knowledge, to be proverbially negligent and careless in the matter of Vaccination. The attacks were, in the first instance, principally among children and young persons who had not been Vaccinated, but subsequently as the contagion increased and became established in these crowded and unhealthy Localities, its ravages were extended to people of all ages and conditions in the immediate neighbourhood, and the old as well as the young, the rich and the poor, all alike, fell victims to the irresistible violence of the disease. From December to the end of March the pestilence continued to increase and extend its ravages on every side, but more especially throughout the Native part of the town, where its chief violence appeared to have been expended. Towards the end of April the Epidemic began to decline, but cases of a severe form still occur up to the present moment.

10. In Dr. Stewart's Annual Report on Vaccination to the Medical Board for 1838, we find it stated that: "Taking the Census of Calcutta made in 1837, to be correct, and the average of six years as afford-

ing a fair estimate of the Mortality, the annual mortality of Hindoos by Smallpox is $\cdot 295$ per cent., or one in 339; that of Mahomedans is only $\cdot 128$ per cent., or one in 782. Out of 100 *deaths* of Hindoos, five and a half are caused by Smallpox; in 100 *deaths* among Mahomedans, the number caused by Smallpox is six."

11. The annexed **Table A** exhibits at one view the mortality caused by each of the four recent visitations of Smallpox among the Hindoo and Mahomedan population of Calcutta, for each month, during the 18 past years.

Table B exhibits among the Native population of Calcutta the Sex of those who died of Smallpox, and the Ages at which the disease proved most fatal during the late Epidemic, *i. e.*, from 1st January 1849 to 1st June 1850.

Table C exhibits the fatality of the disease among the native population in each Police Division and Section of the Town, for the same period.

Table D exhibits the deaths caused by Smallpox among the Christian inhabitants (including European, American, and Anglo-Indian, from 1st December 1849 to 1st June 1850.)

Table E exhibits the monthly *Mortality by all Diseases* from 1st January 1849 to 1st July 1850; in a second column the corresponding mortality by Smallpox, and in a third column the ratio of mortality by Smallpox, in 100 deaths by all diseases.

Table F exhibits the Native population in every Police Thannah on the 1st of June 1850;—the mortality caused by Smallpox during the preceding six months in the same Localities; and the ratio of mortality in 1,000 then *surviving*.

Tables G and H exhibit the results of a Census of the Town Population taken during the month of May, by Mr. Law, with the sanction of Government, at the request of this Committee.

Table I is a statement showing the number of day-laborers who *enter* the town, probably every morning, and return daily to their residences in the suburbs at night.

Table A.

Shewing the Mortality by Smallpox among the Natives of Calcutta, for every month, during a period of Eighteen Years.

Months.	1832.	1833.	1834.	1835.	1836.	1837.	1838.	1839.	1840.	1841.	1842.	1843.	1844.	1845.	1846.	1847.	1848.	1849.	1850.
January,	16	321	0	1	1	1	73	10	0	0	1	0	85	1	1	1	0	97	727
February,	18	408	1	10	0	5	166	0	0	6	1	1	455	2	8	1	3	91	1214
March,	22	644	3	6	1	19	321	22	5	17	7	9	963	14	24	9	23	214	1388
April,	76	636	14	13	0	32	506	27	5	14	5	21	756	26	25	11	22	311	737
May,	104	293	6	11	12	55	250	13	4	4	6	19	375	5	13	8	16	224	316
June,	72	119	4	6	1	49	123	2	0	8	1	55	132	6	2	0	6	175	85
July,	63	93	6	6	0	44	45	0	7	1	1	107	47	3	3	1	5	119	
August,	42	17	0	0	0	20	19	2	0	2	0	15	13	5	1	1	2	53	
September,	100	6	0	0	0	6	3	1	0	1	0	12	6	2	1	1	4	35	
October,	47	10	1	0	1	3	1	4	0	3	1	16	2	1	0	0	0	44	
November,	44	0	1	0	0	1	0	0	1	0	1	13	4	0	0	0	8	47	
December, ..	75	1	0	0	0	31	0	0	0	0	1	68	2	2	0	0	18	314	
Total,	679	2548	36	53	16	266	1507	81	22	56	25	336	2840	67	78	33	107	1724	

Table B.

Shewing the Ages of 6,100 fatal Cases of Smallpox; 3,809 Males and 2,291 Females.

Months and Years.	Years of Age.														Remarks.
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 100	
1849.															
January,	3	31	27	11	7	9	6	1	2	0	0	0	0	0	0
February,	3	36	14	4	6	6	12	5	2	0	2	0	1	0	0
March,	8	69	33	17	31	23	14	5	7	1	3	1	2	0	0
April,	21	112	59	24	38	18	16	7	7	0	5	0	0	4	4
May,	12	84	44	14	21	8	16	3	12	0	5	0	3	2	2
June,	3	52	34	20	27	19	8	2	3	2	4	0	1	0	0
July,	2	44	30	8	9	10	7	4	1	0	0	2	0	2	2
August,	2	21	13	4	5	2	4	0	2	0	0	0	0	0	0
September,	2	14	6	1	3	3	3	1	0	2	0	0	0	0	0
October,	1	15	9	2	7	3	4	1	2	0	0	0	0	0	0
November,	2	16	12	3	1	9	2	0	2	0	0	0	0	0	0
December,	16	87	55	20	37	30	36	8	9	2	3	0	0	1	1
1850.															
January,	31	174	114	86	122	74	56	13	32	7	5	3	1	4	4
February,	113	278	215	137	174	119	73	24	50	5	14	0	7	5	5
March,	140	404	234	138	185	136	77	34	27	1	8	0	2	2	2
April,	105	237	125	58	77	50	31	12	20	3	12	0	3	4	4
May,	19	107	57	26	22	16	27	14	6	6	0	5	1	4	4
Total,	483	1781	1081	583	772	540	392	134	184	29	61	11	21	28	6100

Table C.

Shewing the number of Deaths by Smallpox among the Natives in different localities of the City for Seventeen Months.

Months and Years.	Northern Division.						Middle Division.						Southern Division.						Remarks.
	Jorasanko Station.	Coomartolly Section.	Shampooker Section.	Burtollah Section.	Sukeas' Street Section.	Jorabagan Section.	Bow Bazar Section.	Burra Bazar Section.	Colootollah Section.	Meeheepara Section.	St. James' Street Section.	Mangoe Lane Section.	Park Street Section.	Fenwick Bazar Section.	Toltollah Section.	Collingah Section.	Bamun Baste Section.	Cooley Bazar Section.	
1849.																			
January, ...	4	1	5	26	28	2	0	2	14	13	0	0	0	0	0	0	1	0	0
February, ...	2	3	5	18	24	3	4	6	1	9	4	0	0	2	5	4	4	1	0
March, ...	12	20	7	30	26	7	10	16	9	60	7	0	1	4	3	0	2	0	0
April, ...	8	44	38	41	10	8	19	34	17	71	3	1	0	1	7	7	2	0	0
May, ...	17	34	19	25	19	7	13	9	16	47	6	0	0	2	6	2	2	1	1
June, ...	9	39	20	23	4	7	10	16	6	36	0	1	0	2	2	0	0	0	0
July, ...	1	21	11	15	4	7	8	8	10	24	1	0	0	1	5	3	0	0	0
August, ...	1	8	12	6	4	2	4	1	4	10	0	0	0	0	1	0	0	0	0
September, ...	3	6	4	3	2	5	2	2	0	2	1	0	0	0	0	0	0	0	0
October, ...	4	3	5	5	3	5	0	2	5	6	1	1	0	0	3	0	0	1	0
November, ...	1	2	4	9	0	5	2	6	2	12	0	0	0	0	0	1	2	1	0
December, ...	5	36	18	16	15	25	32	39	33	28	3	0	0	32	13	9	0	0	0
1850.																			
January, ...	38	40	53	31	7	70	73	66	88	121	49	2	0	27	39	20	2	0	0
February, ...	50	95	73	69	27	85	136	79	104	223	88	9	1	32	75	69	9	0	0
March, ...	65	128	120	98	54	124	123	30	130	199	149	2	1	25	65	57	20	0	0
April, ...	24	105	84	67	45	60	29	25	77	74	80	3	0	5	19	30	10	0	0
May, ...	6	33	45	34	26	18	16	2	30	56	7	0	0	1	7	16	10	3	0
Total, ...	250	618	523	516	298	440	481	343	546	991	399	19	3	134	256	219	59	4	6100

Table B.

Return of Deaths by Smallpox among the Christian Inhabitants of Calcutta during the Epidemic of 1849 and 1850.

Months.	Males.										Females.										Grand Total.
	Total Males.										Total Females.										
	Age 1 Year.	5	10	15	20	25	30	40	50	Age 1 Year.	5	10	15	20	25	30	40	50			
1849.																					
December,	2	2	1	0	0	2	0	0	0	7	1	0	2	2	1	0	0	0	7	14	
1850.																					
January,	6	10	1	2	3	3	4	2	1	32	10	9	5	3	4	2	3	1	40	72	
February,	7	13	12	4	7	4	10	2	1	60	7	11	7	4	3	5	3	0	45	105	
March,	14	20	11	3	1	4	5	1	0	59	6	10	2	1	5	6	2	0	35	94	
April,	6	5	1	1	0	2	4	0	1	20	0	2	2	2	1	0	1	0	8	28	
May,	3	5	0	0	0	0	2	0	0	10	0	2	2	1	0	2	0	1	8	18	
Total,	38	55	26	10	11	15	25	5	3	188	24	34	20	13	14	16	8	2	143	331	

Table II.

Shewing the Mortality among Natives by all Diseases, the Mortality by Smallpox and the ratio of Mortality in each Month.

Months.	1849.			1850.		
	Deaths by all Diseases.	Deaths by Smallpox.	Ratio in 100 Deaths.	Deaths by all Diseases.	Deaths by Smallpox.	Ratio in 100 Deaths.
January.	1112	97	8.72 ..	1656	727	43.9 ..
February,	915	91	9.94 ..	1877	1214	64.67 ..
March,	1152	214	18.57 ..	2403	1388	57.76 ..
April,	1291	311	24.09 ..	1796	737	41.03 ..
May,	1305	224	17.16 ..	1150	316	27.47 ..
June,	979	175	17.87 ..	648	85	13.11 ..
July,	881	119	13.5 ..	...	...	...
August,	1027	53	5.16 ..	...	...	...
September,	876	35	4. ..	...	...	...
October,	938	44	4.69 ..	...	...	...
November,	1291	47	3.64 ..	...	...	...
December,	1692	314	18.55 ..	...	...	...
Total,	13459	1724	12.809 ..	9530	4467	46.86 ..

Table F.

Shewing the total Surviving Native Population, in different Localities on the 1st of June 1850, the Native Mortality by Smallpox during the preceding Six Months, the ratio of Mortality by Smallpox to Population in each Division and Thannah.

	Northern Division.						Middle Division.						Southern Division.					
	Jorasanke.	Coomartolly.	Shampooker.	Bartollah.	Sukeas' Street.	Jorabagaun.	Bow Bazar.	Burra Bazar.	Colootollah.	Mochepara.	St. James' Street.	Mangoe Lane.	Park Street.	Fenwick's Bazar.	Tollollah.	Collingah.	Bamun Bustee.	Cooley Bazar.
Population,	42188	34609	19225	39320	11220	23315	13026	56659	28497	31726	13167	3084	1853	11456	18028	20708	5507	4712
Smallpox Deaths,	188	437	393	315	174	382	409	241	462	701	376	16	2	112	218	201	51	3
Ratio in 1000 ...	4.45	12.62	20.44	8.	15.5	16.38	31.39	4.25	16.21	22.09	28.55	5.1	1.07	9.77	12.04	9.74	9.26	6.36

Abstract.

Division.	Population.	Deaths by Smallpox.	Ratio in 1000.
Northern,...	169877	1889	11.17
Middle,...	146157	2205	15.086
Southern,...	62264	587	9.42

Table II.

Population of Calcutta by Census of May 1850, shewing the Classes of Inhabitants in each Division and Police Section of the Town.

	Northern Division.						Middle Division.						Southern Division.						
	Jorasanke.	Coomartolly.	Shampooker.	Burtollah.	Sukeas' Street.	Jorabagaun.	Bow Bazar.	Burra Bazar.	Colootollah.	Moocheepara.	St. James' Street.	Mangoe Lane.	Park Street.	Fenwick Bazar.	Tollollah.	Collingah.	Bamun Bustee.	Cooley Bazar.	
Europeans,	0	4	3	12	7	7	826	715	427	680	417	679	508	602	413	417	341	175	6233
Eurasians,	0	4	1	55	62	0	1121	26	275	113	552	84	102	1277	467	274	65	137	4615
Armenians, ...	0	0	0	0	5	0	5	795	76	9	1	0	0	0	0	0	1	0	892
Chinese,	0	0	0	0	0	0	189	242	401	0	0	13	0	0	0	1	0	1	847
Asiatics,	84	0	0	0	35	238	2413	2288	2874	732	783	91	16	0	3576	1041	1170	1	15342
Hindoos,	36288	32762	17799	26158	9213	21217	7494	46864	14971	20188	11488	1704	1681	9944	4052	7103	2831	2578	274335
Mahomedans,...	7900	1847	1426	13162	2007	1098	4632	9793	8991	11538	1679	1370	1172	12012	13876	13605	2676	2134	110918
Total,...	44272	34617	19229	39387	11329	22560	16680	60723	20215	33260	14920	3941	3479	23835	22384	22441	7084	5026	413182

(Signed) W. T. LAW,
Superintendent of Police.

Table F.

Shewing the Number, Class, and Sex of all persons, who entered Calcutta on the 23rd May 1850, between morning daylight, and 11 A. M.

	Northern Division.				Middle Division.				Southern Division.				Total.	Grand Total.
	Male.		Female.		Male.		Female.		Male.		Female.			
	Entering by Roads and Bridges.	Entering by Ferry Boats.	Entering by Roads and Bridges.	Entering by Ferry Boats.	Entering by Roads and Bridges.	Entering by Ferry Boats.	Entering by Roads and Bridges.	Entering by Ferry Boats.	Entering by Roads and Bridges.	Entering by Ferry Boats.	Entering by Roads and Bridges.	Entering by Ferry Boats.		
Europeans,	47	9	9	2	125	114	45	41	500	102	194	8	1196	83361
Natives,	15284	4591	4091	121	9167	4680	2238	931	34682	323	6043	14	82165	
	24154				17341				41866					

D

(Signed) W. T. LAW,
Superintendent of Police.

12. To derive any very useful results from these Tables, the actual resident population in each locality, and of both sexes, and of every age *living at the outbreak* of the Epidemic should have been known; as also the amount of protection shared among the population, and possessed by the individual victims of the disease, whether fatal or not, from Vaccination or Inoculation; but these facts it was obviously impossible to ascertain with any degree of accuracy; and the Committee can do no more than state generally their opinion derived from the foregoing Statistical data; *first*, that certain districts of the town, which are notorious for their crowded, filthy, ill-ventilated and ill-drained condition were the chief receptacles and hotbeds of this contagious disease; *secondly*, that the poor, the ill-fed, and scantily clad Natives were the greatest sufferers from it; *thirdly*, that the very young were the first because the feeblest victims, and that both sexes seem equally susceptible and equally influenced by Epidemic agencies; *fourthly*, that the progress and violence of Epidemic Smallpox in Calcutta is greatly and uniformly affected by the course of the Seasons.

13. The Committee lament being obliged to declare their inability to elicit any statistical information whatever relative to the sanitary condition of the native population generally, or to the effects of Smallpox and other Epidemic diseases upon Mortality among the native inhabitants of any of the large and populous cities of Bengal excepting Calcutta; although from the topographical position of most of these, upon the banks of the Holy River, into which the dead bodies of *all* Hindoos, of every caste, are

necessarily consigned, (not at random, but at specified, established and *licensed* Ghats only,) nothing would appear to be easier, (and nothing more proper even as a Police Regulation) than to obtain and to record all information derivable on the spot, regarding the "cause of death," the "duration of the illness," the "name of the deceased," his "age," "parentage," and "residence," &c. &c., just as is done at the various Public Ghats and Burial Grounds of Calcutta, and has been done for the last 50 years, if not before. The passive antagonism of Native Usage, and the "cold obstruction" of Official indifference to any matter which does not present itself in the form of an *order* from the Board of Revenue, have set limits to their enquiries which were not anticipated, but which they were not competent to overcome.

14. The *general character* of the disease, during the past 16 months, as shown by the Reports of Cases treated in the Police and General Hospitals, does not appear to have been different from that of the previous Epidemics. The majority of cases occurring among Europeans were "*modified*" by previous Vaccination, but among the Native patients, unprotected either by Inoculation or Vaccination, the disease often assumed its most malignant type ; 57 cases were treated in the Smallpox Hospital by Dr. Woodford, Police Surgeon, of which 40 died, 11 were discharged cured, and 6 remained under treatment, only one of the whole number had been vaccinated and one inoculated ; 20 were Mahomedans, 31 Hindoos, and 6 Native Christians ; 15 were females and 42 males ; all were adults, but one a boy aged 7. They were all of the poorest and most miserable class, and had mostly been eight or ten days

ill before they were found and carried by the Police to Hospital. Apart from the pleasing reflection that these destitute creatures here found refuge and relief, it must always be a sufficient reason for the early establishment and opening of at least one Smallpox Hospital in times of pestilence, that thereby a certain number of its victims are placed in quarantine, and so many sources of infection and danger will be thus withdrawn from the crowded population of the metropolis.

15. The cases treated in the General Hospital, under Messrs. Macpherson and Cantor, were all Europeans, chiefly seamen from the shipping, recruits or invalid soldiers from the Barracks, and a few townsmen. The number admitted from December 1849 to 1st May 1850 has been 76, whereof 20 died and 56 recovered. Dr. Macpherson divides the cases into 46 mild or modified, and 30 severe or confluent; of these latter cases 12 are stated to have been vaccinated and exhibited good cicatrices; 13 had been vaccinated but the cicatrices were not well marked; 5 had not been vaccinated: as to Sex, all were male but 11; as to Age, there were 8 children under five years of age of whom 1 died; of the 8 children 2 were not vaccinated; about 1 in 4 has been the rate of mortality this season, very much the same as that of the Epidemic of 1844; and as was the case then, the Epidemic commenced in December, reached its climax by the end of the cold weather, and is now gradually diminishing.

In Her Majesty's 70th Regiment, quartered in Fort William for the past year, the strength of which, including women and children, was 1,168, only 5 cases have occurred, and these of *modified*

character, whereof only one died. (*Vide* Appendix page cxxvii).

Epidemic Diffusion.

16. As regards the Epidemic spread of the disease, or its propagation by means of the atmosphere, it must be borne in mind that the infectious property of all animal miasms or emanations is greatly diminished, if not entirely destroyed by free dilution in the atmosphere; and that the constitution of the air in Epidemic seasons permits so very wide a diffusion of these germs, that it is impossible to fix with certainty the exact distance at which the Variolous or any other zymotic* poison ceases to be energetic or effective; again, it is a well known and remarkable property of all animal poisons, that they will operate upon the healthy body without the aid of any predisposing causes whatever. A man for instance, in the most perfect health will contract Smallpox or Measles as readily as an invalid, and is even said by a high authority† to be “upon the whole more apt to take the Smallpox than those who are out of health.”

17. To Epidemic influences chiefly does the Committee attribute the great prevalence of the disease lately among the *European* population of Calcutta; for in the first place it is known that to a great degree they were not exposed to the Contagion deriva-

* *Zymotic* is the term applied to all diseases, Epidemic or Contagious, which “have the property of communicating their own action, and effecting analogous transformations in other persons.”

† Dr. George Gregory.

ble from close personal intercourse with the Natives, among whom the disease mostly prevailed, and also that the residence of the great majority of the European inhabitants is in the South and Middle Divisions of the town, far removed from the Native Bazars; the ventilation is always free and uninterrupted, the dwelling-houses large and airy, with separate gardens and enclosures around each of them. In the second place, it is believed that among this class of persons not a single instance of Inoculation for Smallpox has occurred for many years. The Committee greatly regret, however, their inability to discover by any means the actual amount of mortality among the European and Christian population of Calcutta from the want of all Registration of Death, and of its causes, such as exists now in every town in England, and in most other civilized cities of Europe; nor, except from the records of the European General Hospital, to which but few townsmen resorted, has it been possible to learn what amount of *protection* the sufferers of this Class may have derived from previous Vaccination. A proximate estimate of the number of deaths among the Christian community from Smallpox during the past 6 months has been compiled (**Table D**) from the obituary notices published in the newspapers, and from the books of the several Undertakers in town. Including all ages, it is found to be not less than 331, of whom about one-half were children, but a very large portion of the remainder, were adults. The proportion of *deaths* to *seizures* is estimated as 1 in 5.

18. Epidemic influences have also tended greatly to promote the spread of the disease among the *Hindoo*

and *Mahomedan Native* population; and that this has been the chief cause of its prevalence and mortality among them, the Committee can have no doubt, since it is a well known fact that whenever the Smallpox makes its appearance in any of the great towns and populous villages of Bengal, during the Winter and Spring months, it spreads with Epidemic rapidity; thus showing that this Season is particularly favourable to its development; and the disease continues to rage with more or less violence until it is checked by the heat of April, the north-western winds of May, and the heavy rains of June and July, which prove strongly antagonistic to it, so that in September it generally has ceased entirely.

19. Nor is this peculiar effect of the climate and season confined to the Smallpox; for multiplied experience proves that its cognate disease *Vaccinia* is also subject to similar changes at the same Season, while others of the *Exanthemata* are found to be influenced by the seasons in a totally different manner; some of them (such as Measles) generally bursting out on the decline of Smallpox, and often attacking, with great violence, the convalescents from that disease. The following **Table** is quite conclusive as to the *influence of season* upon the Epidemic course of Smallpox; and it is the more remarkable, since the history of Smallpox Epidemics in Europe would seem to show that the disease is indifferent in that hemisphere to seasons, that the frosts of winter and the heats of summer are alike congenial to it, while on the coast of Africa, we are told, that the moist and sultry weather *succeeding* the rains is the most favourable for the development and diffusion of Smallpox.

Table

Shewing the total Monthly Mortality by Smallpox during 18 successive years, from 1st May 1832 to 1st May 1850 inclusive.

November,	120	March,.....	3689	July,	551
December,	512	April,	2846	August,	189
January,	1316	May,	1419	September,.....	181
February,	2372	June,	761	October,	134

Contagion.

20. To personal contact with the sick either in the exercise of the domestic virtues, or the fulfilment of domestic engagements, the spread of the disease among all Classes is secondly attributable. Among the Europeans and Anglo-Indians, the servants of an establishment, particularly those in attendance on the children, are the frequent carriers of infection into the household. Almost all the Mahomedan and many of the Hindoo servants of a family sleep and mess in their own obscure homes in the Bazar, returning to their duties only at the hours when their services are likely to be required; and in this way, should the Smallpox exist in their own dwelling or family, they are often attacked themselves, and must often have carried the infection into their Masters' household also. That this is one mode in which the disease enters families was strikingly shewn by the marked exemption from Smallpox in a large religious establishment, the Nunnery in Middleton Street, called Loretto House, where besides a great many female children who are educated by the Nuns, there resides a considerable number of these

devout ladies, who discharge for themselves and the other inmates, the whole of the household duties ordinarily left in India to Native servants, without the aid of a single domestic male or female: not one case of Smallpox occurred in this Institution until late in March 1850, and that proved a mild one, and did not spread the infection.

21. The very remarkable healthiness of the Native Troops and residents in the Garrison of Fort William, during the past 18 months, while Smallpox was decimating the surrounding population, is attributed by Dr. Montgomerie (Appendix page xlvii) mainly to the exclusion of all the known sources and carriers of contagion, by means of the admirable system of drainage and sewerage now effectively adopted within and around the walls of the Fort, and the strict enforcement of perfect cleanliness and a free ventilation of the Barracks. It has also been greatly owing to the careful avoidance by the Soldiers themselves of all unnecessary intercourse with the town people, and to their confining themselves entirely for the supply of their wants to the well-kept, and well-superintended Military market place called Coolie Bazar, in the neighbourhood of the Fort, which in consequence, doubtless of its excellent regulation, has been almost entirely free from the Smallpox this year, as on a former occasion. To the same causes undoubtedly, and to the general high discipline of that fine corps H. M.'s 70th Regiment, in respect of cleanliness of person, and healthful exercise in the open air, must be in a great measure, ascribed the almost entire exemption from Smallpox of this corps, which has garrisoned Fort

William during the whole of the past year; though to the inestimable protection and modifying power of Vaccination is owing the fact that but one casualty from the disease has occurred in the Regiment, mustering as it does 1,168 individuals, including women and children.

22. The effects of *contagion* were most perceptible, as was to be expected, among the poorer Natives living in the miserable, small, filthy, ill-ventilated and much crowded buildings of the Native town. The Localities of the City in which the greatest mortality occurred and in which the disease assumed its most malignant character, were found to be precisely those pointed out in Dr. Stewart's "Report on Vaccination to the Medical Board in 1838," and they are thus shown to be the permanent Storehouses of every pestilential disease, and likely so to continue until some great fire occurs, or some imperative necessity shall condemn them to utter and comprehensive destruction. In such crowded abodes the avoidance of immediate personal contact with the infected was quite impossible; yet many instances are known to Members of the Committee of downright refusal on the part of the unhappy dwellers in them to permit the removal of the infected, or to separate themselves from them, by quitting the loathsome tenements containing their dying relatives.

The following **Table** is from Dr. Stewart's Report above alluded to:

Table

Showing the Native population and the mortality by Smallpox in ten of the most unhealthy Thanas of Calcutta in 1837:

Thannahs.	Native Population.	Mortality by Smallpox.	Ratio of Mortality in 1000 living.
Baug Bazar,	5,080	32	6.32
Shampooker,	12,396	170	13.8
Churruckdangah, ..	4,661	42	9
Jorasanko,	4,868	33	6.93
Simlah,	9,380	103	11
Sukeas' Lane,	6,857	86	12.65
Machooa Bazar, ...	4,105	37	9
Coomartolly,	4,607	22	4.76
Hautcollah,	10,121	53	5.23
Jorah Bagan,	10,485	33	3.15
Cubberdangah, ...	6,628	20	3.02

23. It has been mentioned by some of our informants that the filthy clothing of the dead and dying, their furniture, the mats of their rooms, &c. passing into the hands of others, equally poor and wretched, have been fruitful distributors of Disease, and that the stench from the bodies before removal or during their carriage to and exposure on the banks of the river by the public scavengers often tainted the air and spread the malady among the neighbours and passengers, proving what has sometimes been doubted, that Death itself does not destroy the energy of the poison. (See the evidence of Baboo Comar K. K. Roy, Appendix page lxxix and that of Mr. J. Floyd, Appendix page xli.)

Inoculation.

24. The third great cause of the diffusion of this fatal malady is Inoculation with the matter of Smallpox. The origin of this practice in Bengal we have been unable to trace, but there can be no doubt that it is of great antiquity, and that it is extensively practised by all classes of the native inhabitants of India, Hindoo and Mahomedan. From investigations by Dr. Wilson of Bauliah, Dr. Wise of Dacca, and others, it is probable that about 70 per Cent. of the population of Bengal are inoculated.

25. A popular belief exists, and has been industriously encouraged by designing persons, that the observance of this practice by Hindoos at some period of life is a religious duty, and its neglect criminal or at least disreputable. The Committee, therefore, instituted a most searching inquiry on this head, and have obtained distinct answers to the following Questions from the most orthodox, and most learned interpreters of Hindoo religious and law books, which, it is hoped, will settle the point for ever.

QUESTIONS SUBMITTED BY THE COMMITTEE ON SMALL-
POX INOCULATION TO PUNDITS.

Calcutta, 19th March, 1850.

1st.—Is there in the holy Shasters any distinct commandment enjoining Smallpox Inoculation as a Religious duty; or recommending it as a commendable act?

2nd.—What religious or other observances are enjoined on those who are attacked by Smallpox?

3rd.—Is the omission to be inoculated considered a sin, or disreputable?

4th.—Is there in this world any penalty for the omission, or punishment in the next; and if so, how may it be atoned for?

5th.—Supposing it be proved that the Vaccine disease is really a modified form or variety of the Smallpox, should not all the religious ceremonies observed hitherto in cases of common Smallpox be attended to after Vaccination by good Hindoos?

26. The Replies to these questions received from the Pundits of Nuddea, who are considered to be the holiest and most orthodox of Hindoos, from the Pundits of the Benares College* and of the Sanscrit College of Calcutta, as also from the Pundit of the Court of Sudder Dewanny Adawlut, are given at full length, and in their original language, in the Appendix. They are quite unanimous in declaring that although certain religious observances are proper or incumbent on all persons (being Hindoo) who contract Smallpox in any form, either casually, or by Inoculation, yet there is no sort of obligation, moral or religious, imposed by Hindoo law upon any one to subject himself or his children to the disease by practising Inoculation; moreover that neither penalty nor reproach is attached to its omission.

27. The following translation, by Dr. Ballantyne, of the Replies by the Benares Pundits, well embodies the entire of the evidence obtained on this head, and appears to the Committee quite conclusive on one point, hereafter alluded to, namely, the futility of the objections to putting down this murderous practice, on the score of its Religious character and its being a religious duty.

Answer 1st.—"There is no reference to Inoculation in the Holy books, but if the practice be calculated to save life, it must needs be praiseworthy.

Answer 2nd.—On the appearance of Smallpox, the Goddess *Situla* is to be worshipped by recitation of her praises and feeding of Brahmins.

Answer 3rd.—As neither praise nor blame is assigned to the practice of Inoculation in the Shastras, so neither is the practice in common life, regarded either with approval or disapproval.

Answer 4th.—In consequence of the absence in the Shastras of any injunction as regards Inoculation, of course there is no penalty with reference to it.

Answer 5th.—If it be ascertained that there is no (essential) difference between the ordinary Smallpox and the pustular disease which follows Vaccination, of course the ceremonies proper in the one case are proper in the other." *

28. The Rajah of Nuddea, (Appendix page xv.) communicates the opinion of the most learned Hindoo Law Pundits of the Kishnaghur College on the above subject, and they are precisely the same as those of Benares. To question 5th the reply is somewhat equivocal, viz.

Answer.—"The performance of Cow-pox Inoculation is not attended with any religious hindrance to the fulfilment of Religious duties by the person so performing."

A more guarded Reply to the same query is that of the Sanscrit College Professors and Pundits, which is translated by the Secretary to that Institution, and runs thus: "In cases of *modified Smallpox* in a person who has been punctured in the English manner, the worship of *Situla* may be performed with all the usual formalities, she being the guardian Deity of Smallpox Diseases; such religious observances are necessary." But the most definite Answer is from the Pundit of the Sudder Dewanny Adawlut in Calcutta. "The Vaccine Disease is in reality a modification or

variety of Smallpox ; such being the case virtuous Hindoos when vaccinated, should with veneration, faith and purity, observe the same religious ceremonies mentioned in my answer to the 4th question as they do when attacked with Smallpox." (Appendix page xxiii.)

29. The alleged efficiency of Inoculation, as a modifier of Smallpox, will be afterwards considered ; the Committee desire here merely to present a brief Summary of the evidence obtained of its fatal energy as a Diffuser of the disease. From a multitude of written testimonies on this head which will be found in the Appendix, it may be enough to quote the following authentic facts as proving beyond doubt that the practice of Inoculation is by no means so harmless or safe a matter to the individual submitting to it, as has been generally alleged ; but that it is destructive to a considerable number of those operated on, and produces in them a disease equally prolific of poisonous emanations as the Natural one, and is therefore, in the last respect as baneful in its effects on the population at large.

30. It was stated publicly some time ago in the *Bhaskur* (a respectable Bengally Newspaper) on the authority of its Editor, who since then pledges himself for the veracity and accuracy of his information, (Appendix page xxxvi.) that in the villages of Sonatikoree, Zillah Hooghly, nearly 1,000 boys and girls were inoculated this year of whom not less than 300 died, and the remainder after sometime have been pronounced out of danger. Again, in the village of Caderpore among 100 Children that were inoculated, more than 20 cases have terminated fatally.

Mr. Crawford, of the Chitpore Dispensary, reports—
“ a patient named Rohumally brought one of his

Children to the Dispensary for treatment of *ulcerated cornea* after Smallpox; he states that five Children had been inoculated in his house, when three of them took the Smallpox and died from its effects." (Appendix page lxxv.)

Baboo Issurchunder Singh of Paikparah, a village in the Suburbs of Calcutta, replies to a question regarding the fatality of Inoculated Smallpox. "To say nothing of other instances of the kind alluded to above, I know the poison propagating itself and producing death in my own family a few days after its introduction by a *Ticcadar*. There were three individuals attacked by the Smallpox, at the same time, of whom one recovered and two died." The same intelligent informant answers to another question, "as far as I am able to judge, the chief exciting cause which tends to set up Smallpox among the Hindoos of Calcutta, is the practice of Inoculation. This impregnates the atmosphere with poisonous exhalations from the bodies of the inoculated, and thus brings the disease home to the people already so liable to it, by the peculiar defects of the sanitary condition of the Town." He shrewdly adds—"suppose Smallpox arose of itself in Calcutta, it must have had a powerful auxiliary to back its progress in the practice of Inoculating, which the people resort to on the outbreak of the Epidemic. In fact, I am firmly convinced that the practice of Inoculating may protect individuals from the attack of Smallpox, but it is fraught with positive harm to the community at large." (Appendix page excix.)

Coomar Kally Kissen Roy replies—"I know many instances of the disease being introduced into families by *Ticcadars*, and deaths have ensued;" and again,

“ I am of opinion that Inoculation is the general cause of the promulgation of the disease in Calcutta and in its vicinity.” (Appendix page cci.)

Mr. Naylor, of the Gurranhattah Dispensary, in the centre of the Native Town, reports—“ I feel confident in asserting that the practice of Inoculation is one of the principal causes of the great ravages committed by the Disease and that it has been the chief means of diffusing the contagion.” (Appendix page lxxi.)

One Native Member of the Committee gives the names and other particulars of 6 cases of Smallpox induced by Inoculation which proved fatal. (Appendix page xxxii.)

The Magistrate of the 24-Pergunnahs states that one Baboo whom he had examined “ mentions 14 cases of deaths consequent on Inoculation, within his own knowledge during the last season, and says he has heard of several besides.” He has also ascertained that “ out of 2,586 individuals who had been inoculated by the *Ticcadars* of the Suburbs, 19 had died.” (Appendix page xxxviii.)

31. Similar disastrous consequences have been frequent, not only in Calcutta but wherever Inoculation has been practised, a certain number of those inoculated falling victims to their own folly. The Rev. C. Driberg, of Barripore, informs us, from his own personal knowledge, of nine fatal cases, caused in his neighbourhood this year by Inoculation. The testimonies to this effect from all the Civil Surgeons we have examined which may be found in the Appendix, are too numerous to be quoted here.

32. Several of the *Ticcadars* practising in Calcutta were examined by different members of the Committee in the hope of ascertaining the *ratio* of

mortality among those inoculated ; but though most of them acknowledge that death does occasionally follow, it was found impossible to obtain an accurate statement of its frequency in any number of cases inoculated. They all evinced the greatest reluctance to give any information of their proceedings, and when pressed to explain certain fatal occurrences not to be denied, were fain to shift the responsibility of them to some other person, or to attribute the casualty to the virulent character of the prevailing Epidemic. The statements had from some of these men, are to be found in the Appendix page xxx.

33. But serious as the consideration is, that this practice is not without danger to the individuals submitting to it, it merges into insignificance when compared with the Public mischief done by it ; for Inoculation may be shown to be positively prejudicial and hurtful to the interests of Society. It is a well ascertained fact, not even denied by its advocates, that the Disease thus set up retains all its zymotic energies however mildly it may have affected the individual operated on ; the germs of the disease thus generated are not a whit less poisonous or less diffusible than those of the Natural Disease ; the exhalations or emanations from the patient's body are just as powerful as those from any sufferer under another form of the malady ; the matter, virus, pus, crusts, scabs, &c., formed on the skin of the patient are equally potent with those from any other ; the clothing, bedding, napery used by him, are equally retentive of the poison they have absorbed ; and the Variolous Disease they may chance to communicate to another, bears no relation to the mildness or virulence of that from which it was derived, but will exhibit its specific cha-

racter in the new recipient, unmodified by any antecedent of that sort. In short, every single case of Inoculated Smallpox does of necessity help to spread the disease among the population, by adding to the number of its active exciting causes.

34. Twenty years ago Dr. Cameron reported—“It is now well ascertained that Smallpox Inoculation is the great means by which Variola is kept in existence in Calcutta.” He further stated that there were then “no less than 10 to 15 *Ticcadars* employed annually in Calcutta for the purpose of practising Smallpox Inoculation.” In 1844 the Superintendent of Vaccination reported that the “Smallpox is annually introduced into Calcutta by a set of Inoculators, numbering about 30, to the great endangerment of Public Health.”

35. At the present time, it is ascertained that their *number* has risen to 68. Mr. Law has succeeded in framing a Statement of the names and residences of all of them (Appendix page xxviii) and a number of other particulars regarding their operations. It appears that 42 of the number are permanent inhabitants of Calcutta, residing chiefly in the North Division or Native part of the town. They are principally of low Hindoo *castes* or *trades*, such as those of Maullee, Tauty, Koomar, and Napit, from which they derive their principal livelihood during nine months of the year, practising their Profession only during the other three. The remainder are Brahmins or Dybogyas, and these are said to come to town annually from Burdwan, Hooghly, Beerbhoom, and the adjacent West and Northern districts, generally in the month of Maugh, remaining in town for about 4 or 5 months, and inoculating on an average 70 or 80 persons each.

One of these men informs us that very poor people pay about 2 rupees to the *Ticcadar* for inoculating 2, 3, 4 or 5 children at once in a group or family, which is the custom. The middle class people pay from 3, 4 to 10 rupees to the operator for a similar party, and as much more to the Brahmins for the performance of Poojah or worship, the most expensive part of which is the *Gaun* or canticle to be sung for several successive days in honor of the Goddess *Situla*. When the operator is not a Brahmin himself, or rich enough to possess an image of the Goddess, the Poojah is performed at the nearest shrine of the Deity, and the fees are in that case paid to the officiating priest there.

36. The following is a statement of the expenses actually incurred by a respectable native of the middle class for inoculating three children in his family, the total amounting to rupees 15-4.

Items.	Paid to Ticcadars.		Paid for Poojah.		Miscella- neous ex- penses.	
The day of Inoculation cash,	1	0				
The day when the pustules are ripe,	1	0				
The day of sprinkling water on pustules, a						
Gaumcha, Rice, Pan, &c.,	0	8				
On cure,	2	0				
	4	8				
Poojah, 16 days at home, at 2 annas, ...	...	...	2	0		
The last day on cure, silk and cotton cloth,	...	...	1	4		
Gold, ... ..	...	...	2	0		
Sweetmeats, ... ..	...	...	2	0		
Priest's fee, ... ..	...	...	0	8		
			7	12		
Miscellaneous, { Gaun (twice) cash, .....	...	...	...	...	2	8
{ Old cloth, Rice, &c., .....	...	...	...	...	0	8
	7	12			3	0
	3	0				
Total for 3 children, ...	15	4				

37. That some of the *Ticcadars* derive a large Professional Income there can be no doubt, particularly in seasons like the present, when besides operating for the production of the Disease, they are extensively employed as physicians, to treat those affected, whether Naturally or by Inoculation. A native member of this Committee says, that " he has been informed, on good authority, that one *Ticcadar*, named Bissonauth Maullee, has earned rupees 12,000 this year, by attending the Hindoostanee Smallpox patients." (Appendix page xxxiv.)

38. An interesting account of their mode of operating, their treatment of the inoculated, the progress and appearance of the inoculated disease, &c. &c. is published in the Appendix to Dr. Cameron's Report, from the pen of Rajah Radakant Deb. It is there stated that at that time it was customary to remove all those who had not previously had the Smallpox, as well as pregnant women, from the house where Inoculation is practised, because it is called in Sanscrit *Sunchariroga*, or a contagious disease. But this certainly is not the common or even the approved practice now.

PREVENTIVE MEASURES.

Inoculation.

39. The third head of enquiry relates to the efficiency or otherwise of the different means now in use among the people, with the view of lessening the violence and destructiveness of Smallpox, or of pre-

venting its periodical invasions altogether; and it is almost needless to say that the only two measures, laying any claim to specific virtues of this sort, are Inoculation and Vaccination. The former, though of much greater antiquity, has been to a considerable degree superseded by Vaccination in Calcutta, and some other cities of Bengal containing a large and a mixed population; but throughout the Rural Districts, and among the ignorant and prejudiced classes of natives, it is still preferred and very universally practised. There is, however, one class of people mentioned by Mr. Elliott, and his informant Baboo G. P. Ghose, and by Ramchand Mullick (Appendix pages xli and lxx) belonging to a particular sect of Hindoos and a numerous one, who consider it impious to resort to any precaution, or to make use of any protective influence whatever, in times of pestilential visitation; and others there are equally ignorant and unreasoning, who imagine that the Deity is to be propitiated by the death of one member of a family from Smallpox, and who will not, until this sacrifice has been completed, resort to any precautionary or preventive measure.

40. As respects the validity of the claim of Inoculation to be considered a safeguard against Smallpox, the Committee have found no ground whatever to doubt the long vaunted efficacy of this operation when practised on fitting subjects, and in a fitting manner, and at fitting seasons as a *modifier* in the individual operated on, of the Disease, which it at the same time communicates; nor to question the *degree* of future immunity it confers on him, and which is pro-

bably equal to that of Vaccination;* but inasmuch as the Disease which is thus set up, is also known and freely acknowledged to be equally infectious and contagious as the Casually contracted Smallpox, it cannot be considered a *diminisher* or *preventive* of Smallpox among the people; nor can it be a matter of surprise that in countries where the practice is still permitted, the Smallpox shall be found to prevail as extensively and fatally as ever, unchecked by any Antidote, undiminished by any medical treatment.

41. On the other hand the effect of Vaccination, (properly performed) in diminishing the *number of deaths among the people* from Smallpox, wherever it has been generally practised, has been most apparent. Thus it is stated in the Report of a Parliamentary Commission on Vaccination in 1833, that the "proportionate mortality from Smallpox in London before 1800, when Vaccination was introduced, was about one in every ten deaths, but was then reduced to about three in every hundred deaths, and was

* "Re-vaccination succeeds or otherwise, on persons who have had Smallpox, or Cowpox, almost exactly in the same *ratio*; thus establishing a most remarkable analogy.

"The proportion of one hundred cases of each description is as follows:

"Vaccinated after Smallpox, with success,.....						32
Ditto	ditto	modified,	.....	.....	.....	26
Ditto	ditto	no effect,	.....	.....	.....	42
						100
Re-vaccinated with success,						34
Ditto	modified,.....	25
Ditto	no effect,.....	41
						100"

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therefore only about one-third or one-fourth of what it was prior to the introduction of Vaccination. But no similar alteration is to be traced in the bills of mortality in the deaths from Smallpox prior to and subsequent to 1720, the period of the introduction of Inoculation," or if any, it is indicative rather of an increased mortality, after Inoculation became general.

	Total Mortality.	Mortality from Smallpox.	Proportion in 1000 who died of Smallpox.
Average of 9 years from 1701 to 1710...	21,110	1,045	49
" 10 " 1710 to 1720...	23,826	2,123	89
" 10 " 1720 to 1730...	27,361	2,257	82
" 10 " 1730 to 1740...	26,047	1,978	76
" 10 " 1740 to 1750...	26,060	2,002	77
" 10 " 1750 to 1760...	20,849	1,957	94

The obvious and unavoidable deduction from so striking an Experience on a large scale, and where neither obstacles of Climate, nor prejudices of Caste interfered to prevent the free and eager adoption of Inoculation, which was encouraged in every way, and patronized by Royalty itself is, that as a *diminisher* of Smallpox *in a community*, the practice is utterly inert and useless.

42. Some cases have been reported to us of Secondary Smallpox occurring after previous Inoculation, as happens after Vaccination and Natural Smallpox; but we believe that *death* has resulted but rarely if ever, and that the Disease in all these cases is generally mild and *modified*. Dr. Ross of Hooghly, however, mentions having attended nine cases of *Confluent* Smallpox, "the whole of whom had been *inoculated* in early life,"—(*vide* Appendix lxxxv.)

Vaccination.

43. To Vaccination therefore, and to that *alone* can we look for efficient and general protection from Smallpox, for prevention of its ravages, and limitation of its destructiveness; though no past experience permits the hope that by this or any other means however popular, can the Disease be entirely extinguished or banished from any country. We find it stated in the public papers that even in London during the past twelve months the deaths from this cause were not short of 835; and it is known to have prevailed epidemically there, and in various other cities of Europe repeatedly during the last ten years, although Vaccination is now universally practised, and in most of these places enforced by law.

The Committee are happy to be able to assure His Honor that nothing has transpired in the course of their enquiries, which has tended to shake in the least degree their unbounded faith in the Specific power of Vaccination as an *antidote* and a *modifier* of Smallpox. It is the opinion of every medical man we have consulted, and we believe it is that of every educated man in India, that when properly and successfully conducted, Vaccination is just as efficient a safeguard here as in England; and the Appendix to this Report contains numerous striking testimonies to this effect: but the Committee deem it unnecessary to occupy His Honor's time with abstracts or details of these, since more than half a century's trial of Vaccination in India and in every part of the world has not shaken the well established validity of its original

claims, and at the present day these can neither admit of question, nor require confirmation.

44. Perhaps, however, in no place where Vaccination has been so long practised, have so fatal and so frequent invasions of Epidemic Smallpox occurred as in Calcutta, and it becomes a most grave and important enquiry, *whether* this has been owing to neglect and disuse of the Remedy on the part of the people, or *secondly*, to errors and imperfections in the mode of applying it. To each and both of these causes we much regret to state that our information leads us to attribute the recent uncontrolled havoc caused by Smallpox in Calcutta.

45. It may be in the recollection of His Honor that during the prevalence of the former Epidemic of 1843-44, a considerable increase of the Vaccine Establishment was authorized, and a new distribution of the Native Vaccinators was suggested by the Superintendent General and sanctioned by the Medical Board, having for its object a more effective system of superintending and inspecting their operations, and at the same time making the uses and advantages of the prophylactic more generally known, and more easily accessible to the poor. By these arrangements a Native Vaccinator was appointed to be in attendance, daily, at each of the three large Town Dispensaries, which are visited every morning by crowds of sick persons seeking advice and medicine from the hands of the Resident European Medical Officer. The Vaccinators were instructed to bring thither with them one or more of the children they might have vaccinated during the week in their own District of the Town, for *inspection*; and from these, under the eye of the Medical Officer, any applicants for the boon were at

once vaccinated on the spot: a simple rotation of duty made it easy for these men to occupy themselves during the week in looking about for fitting and willing Subjects, each man being ordered to attend at the Dispensary only on two days in the week. Their case-books were examined daily by the Medical Officer of the Dispensary, signed by him as authentic, and subsequently brought on the same day for registration to the office of the Superintendent General of Vaccine, whom they also supplied with "charges" of Vaccine lymph and dry "crusts" for distribution to the Mofussil.

46. At the time referred to, there were but three Dispensaries, with three Vaccinators to each, which became thus also Vaccine Depôts, and these were centrically situated. Since then, four more Dispensaries have been established by the liberality of Government in connection with the Native Hospital, to provide for the increasing wants of the Native poor, and at each of them have been stationed three additional Vaccinators; but to one only of these new Dispensaries is an English Apothecary appointed.

47. The success of this arrangement at its outset was very encouraging as respected Vaccination. The demand for its protection suddenly became very great, excited partly no doubt, by the prevalent panic, partly by the novelty of the boon to many, but chiefly it is thought, by the evident anxiety and unusual care with which the Vaccine operations were conducted and superintended by the European Medical Officers of these Dispensaries. The number of individuals vaccinated at the different Depôts or reported by the Vaccinators to have been vaccinated by them in the adjoining Districts of the Town is shewn in the following Table.

Table.

Year.	Number vaccinated.	Year.	Number vaccinated.	Year.	Number vaccinated.
1835	920	1841	6671	1847	10068
1836	1479	1842	8138	1848	8081
1837	4951	1843	10988	1849	7088
1838	7267	1844	19096	1850	} 5089
1839	5058	1845	11951	5 months	
1840	6546	1846	9997		

48. Since then, notwithstanding the multiplication of Depôts, and the large increase of the number of Vaccinators, (viz. from 9 to 21) it will be seen from the annexed Table that the demand for the antidote has varied much, seemingly in accordance with the decline or prevalence of the Epidemic, and the corresponding subsidence or increase of the panic caused by it; but that this was not the sole cause is probable when it is remembered that in these years an extensive Emigration of Coolies to the Mauritius and elsewhere was going on, and that Vaccination was then made compulsory on all of them who did not exhibit unexceptionable proofs of previous Inoculation or of previous Vaccination.

Table.

Year,	Mortality by Smallpox.	Number vaccinated in Calcutta.
1836 ..... ..	... .. 16 .....	..... 1479
1837 ..... ..	..... 266 .....	..... 4951
1838 ..... ..	..... 1507 .....	..... 7267
1842 .. ... ..	..... 25 .....	..... 8138
1843 ..... ..	..... 336 .....	..... 10988
1844 ..... ..	..... 2840 .....	..... 19095
1849 ..... ..	..... 1724 .....	..... 7088
1850 ..... ..	..... 4376 .....	..... 5089
5 months, }		

49. It is evident from this figured Statement, which shews also the simultaneous Mortality occurring in Town from Smallpox that *panic* had much to do in stimulating the otherwise improvident Bengallees to seek the protection of Vaccination ; but from the Reports of Dr. Stewart himself as well as the other superintending officers at the Dispensaries, the Committee are constrained reluctantly to admit that the demand for Vaccination this year has been by no means so great as might have been expected ; and that this is attributable in some degree to a deterioration in the quality of the lymph, which took place early in the present year, and necessitated the total suspension of Vaccination in some Districts for several weeks. Numberless cases were stated in January to have occurred of its failure, and worse still, of its *producing Smallpox* ; and hence arose a very natural distrust and apprehension in the minds of many, whereof the designing and avaricious *Ticcadars* largely availed themselves.

50. On enquiring into the cause of this deterioration of the lymph, the Committee find room nevertheless for ample encouragement, believing that it was but temporary and accidental.

The following letter, from the Medical Board to the Superintendent of Vaccine in Calcutta, bearing date the 27th May, will satisfy His Honor that the exertions made to rescue the present stock of lymph from permanent deterioration have been successful.

FROM J. FORSYTH, *Surgeon,*
Secretary to Medical Board,
 TO D. STEWART, ESQ., M. D.,
Superintendent General of Vaccination.

SIR,—I am instructed by the Members of the Medical Board to acknowledge your letter of the 25th Instant, and to assure you on their part, that it afforded them heartfelt satisfaction to discover, by the characteristic and very perfect appearances on the arms of the child sent by you for their inspection a few days ago, that the genuine Vaccine Disease has survived the severe trials to which it has been exposed during the last four or five months successively, owing to the prevalence of a very fatal visitation of Epidemic Smallpox, and the high temperature of the Season.

2. At such a time as this, after so much has been witnessed and said, that was calculated to lessen the confidence of the Public in the protective influence of Vaccination, it is, they think, matter for sincere and hearty congratulation that undeniable proof has thus been furnished of its vitality and vigour, in circumstances of Season and Atmospheric constitution, which are commonly believed to be adverse to its successful propagation.

3. It has been observed in other Climates that the energy of the Vaccine Virus, or the susceptibility to its influence has been more or less weakened during the extensive prevalence of Variolous Disease; and it is certainly cheering to know that even here, as elsewhere, it regains its power with the decline of the Epidemic. This, joined to the fact that the information they have been able to collect, leaves the Members of the Board room still to believe that the in-

stances were very few in which those died from Smallpox during its late visitation, who could shew unequivocal marks of previous genuine Vaccination, encourages them to hope, that by the employment of more extended and more trustworthy Agency in its propagation, the confidence which it originally enjoyed may yet be renewed in its Preventive Influence.

I have, &c.,

(Signed) J. FORSYTH,

Secretary to Medical Board.

FORT WILLIAM,
MEDICAL BOARD OFFICE, }
27th May, 1850.

51. For several years past it has been the practice of the Superintendent of Vaccine in Calcutta to renew the stock of lymph annually, from the fresh supplies which are sent out overland, every Autumn, by the National Vaccine Institution in London, through the India House, both to him and the Superintendent of Vaccine at Simlah. After satisfying himself of the success of his trials and the genuineness of the stock thus introduced, he is always careful to submit a few cases for the approval of the Inspector General and the Medical Board, after which he directs his Native Vaccinators to cease using the past year's lymph in Town, and to propagate only from the new stock. The Committee are thus quite satisfied that the lymph which was used in Calcutta in November and December last was unexceptionable, and that it is still obtainable in perfect purity, notwithstanding the severe ordeal it has been subjected to, during the past four or five months.

52. It would appear that owing to the great prevalence of the Epidemic, its existence in fact in almost every house in the native town, and the difficulty or impossibility of separating the already affected members of a family from those whom panic led to seek the protection of Vaccination, great numbers who were *punctured* by the Vaccinators with unexceptionable lymph, exhibited within a few days after the operation, undeniable symptoms of Smallpox. The odium of this untoward occurrence was very unjustly cast upon the lymph used, the blame and the punishment fell on the unlucky Operator who had, but in vain, represented the necessity of separating his patients from those already infected, if due success was expected to follow his operations.

53. The Committee have in truth been greatly surprised and struck with the very general ignorance existing even among well informed people of the true principles on which the success of Vaccination depends; and in order that the subsequent observations may have a clear and substantive meaning we deem it necessary to state briefly what we consider to be required to render the process of Vaccination as perfect as possible. We are constrained to adopt this course from observing the great discrepancy that exists between the statements and opinions of different individuals, which we are convinced could not have happened had correctness and uniformity of observation been more common, and the true principles of Vaccination been better understood.

First, it may be set down as an axiom never to be forgotten, that the Vaccine Vesicle to be successful and perfect, must undergo a regular and definite course;

and that no one is qualified to judge of its effective character, or to certify to its authenticity or success, who is not familiar with its correct appearance at different stages, and has not noted its progress at suitable periods.

A *Second* point demanding unvarying assiduity is the character of the lymph employed. It never ought to be taken from a Vesicle that deviates in the least degree from the perfect standard; nor from a patient laboring under any cutaneous disease; and it ought never to be applied to an individual who is, at the time, either suffering under any illness, or exposed to any infectious disorder.

Knowing as we do the universality of Skin Disease among the Natives of Bengal, we fear this rule has not always been carefully attended to by the Native Vaccinators, and that deviations have thus arisen and been propagated, which afforded varying degrees of security according as they approached to or receded from the healthy character. The genuine disease can only be produced by pure lymph from a pure and regular source, and the proper time for obtaining this lymph from the Vesicle is between the fifth and the eighth day.

A *Third* point which we have reason to suspect is too often overlooked, is the necessity of leaving one or more of the Vesicles to run their normal course without being in any way disturbed. We believe that this caution has been often neglected, by reason of the carelessness and ignorance of parents, and the too hurried manner in which Vaccination is sometimes performed and conducted.

A *Fourth* point on which perhaps too much stress has been laid, is the appearance of the Cicatrix or

mark which is left on the arm. It is true that after regular Vaccination it generally assumes an uniformity of aspect well known to medical men, and on its appearance the Medical Officers of H. M. Army and Navy mainly depend, and all Recruits in whom it is not perfect are subjected to Vaccination. We are, however, satisfied that *by itself* it ought never to be absolutely trusted to as a proof of previously successful Vaccination. It is only when unceasing attention is paid to every one of these, the fundamental Jennerian principles of Vaccination in each individual case of transmission, that it is possible to preserve the Vaccine Lymph from deterioration; for if a deviation once commences it must be perpetuated, and must necessarily afford a gradually decreasing protection.

54. A *Fifth* point essential to the practical success of Vaccination in India, but which is not noticed in Europe, is the selection of the proper Season of the year for its performance. It has been long observed that extreme heat of the weather proves antagonistic to the successful propagation of the Vaccine prophylactic, as it has been shewn to be to Smallpox. The latter disease we know invariably begins to decline in April, and all the Vaccine Returns from Bengal and the Upper Provinces of India indicate a corresponding decrease in number and in success at that Season; it must be inferred that there is a diminution in its efficacy as a preventive.

So remarkable has this occurrence in the Upper Provinces become of late years, that the Medical Board submitted, not long ago, to Government a recommendation that Vaccination should be entirely

suspended there during the hot months on this account. (Appendix page cccclxvii.)

A similar deterioration of the Lymph though certainly to a much smaller degree is observable at the same Season in Bengal, and it is only with much difficulty, and among the European and wealthier classes of Calcutta society who can afford to look after their children at this season, and will take good care to protect them properly from the heat of the weather, &c. &c., that it is considered prudent to Vaccinate. Indeed, there exists among the Natives a popular prejudice against Inoculation at this time of the year, confirmatory of the above observation respecting Vaccination.

55. But the Rainy Season appears to be the most inimical to successful Vaccination in Bengal. In a letter from the Medical Board to the Bengal Government dated 16th November 1848, (Appendix page cccclvii) it is stated that "during the rainy season in some, if not all, the districts of Lower Bengal, the simple puncture for the insertion of Vaccine virus frequently produces violent inflammation, which either degenerates into foul sloughing sores, or the same degeneration succeeds to the maturation of the Vesicle. In both cases Vaccination must necessarily be suspended for a time."

56. Other untoward occurrences have been brought to our notice which it is difficult to explain except by supposing the lymph or crusts (used under the belief of their perfect genuineness) to have been designedly exchanged for Smallpox virus, or to have been at the time of using them largely diluted or mixed with that poison by the native operator; such

are the cases recorded by Dr. Wilson of Bauleah, and Mr. Beaufort, Magistrate of Jessore, (Appendix pages ccxvii and cccclxix.)

To account for them, the Committee would be greatly at a loss, did we not find it asserted in the strongest language by the Medical Board in their letter of the 25th February 1850, "that the present race of Native Vaccinators are mostly made up of the basest and most untrustworthy of their countrymen, frequently consenting for a small bribe to mix some Smallpox matter with the Vaccine lymph which they are hired and expected to propagate in purity."

57. A number of other objections have been stated to us against Vaccination, which it is not necessary here to repeat or to discuss, since they are evidently founded in ignorance of its proper uses and laws; it cannot be doubted that all of these would speedily be overcome by the light of more general education and information. We allude particularly to the notion of the non-permanence of the protective power of Vaccination, and the alleged necessity for periodical Revaccination. But one very absurd and prevalent notion deserves mention; it is, that the moment a child has been punctured or operated on, he is at once "Vaccinated," and becomes immediately safe from infection however much he may continue exposed thereto.

58. The obstacles to successful Vaccination in Bengal may be thus briefly enumerated.

First. An ignorant and improvident people.

Second. A popular and long established rival usage, and a prejudice in its favour.

Third. A climate, which for one-half of the year is unfavourable to successful Vaccination.

Fourth. A numerous and active body of Inoculators, in open and licensed competition with the Vaccinators.

Fifth. An indolent, untrustworthy and unprofessional set of men employed as the *stipendiary* agents for the diffusion of Vaccination.

Sixth. A general ignorance among all classes of the true principles, and proper management of Vaccination, together with an erroneous and exaggerated idea of its powers against Smallpox.

Seventh. A difficulty in procuring sufficient and qualified professional agents for the performance and management of every Vaccine operation.

Eighth and last. Frequent invasions of Epidemic Smallpox during the cold weather into crowded Cities.

59. With such multiplied obstacles as Vaccination has had to encounter, the Committee cannot wonder at, though they deeply lament the untoward and fatal occurrences of 1837, 1844 and 1850, which, while they have deeply affected the vital interests of the people and filled the minds of their Rulers with humane and great anxiety, have really rendered it a most difficult and delicate matter to decide what is now best to be done.

SUGGESTIONS.

60. Deeply impressed with their responsibility, this Committee, which consists of men of varied opinions, pursuits, and opportunities of observation, has come to the unanimous determination of presenting, for His Honor's consideration, the following

propositions, which are the results of an unbiassed and deliberate conviction of their necessity.

FIRST SUGGESTION—"It is indispensable to the interests of humanity that the practice of Inoculation should now cease." Such were the impressive words of the late Dr. Cameron, Superintendent General of Vaccine, in 1831; who added, "but it is pretty evident that while any pecuniary gain is derivable from Small-pox Inoculation, individuals will be found to practise it; and while any prejudices remain against Vaccination, which it is their interest to keep up and increase, there will be no difficulty in finding subjects to practise upon."

We think that he might have truly added that, in a country where practices such as *Suttee* and *Infanticide* were, until lately, deemed justifiable on the score of Religious usage, neither will there be wanting bigots to mislead the ignorant Hindoos, and to prejudice their credulous and simple minds, against whatever may be falsely represented to them as an innovation, or an interference with their religious privileges.

61. The gentlemen who compose this Committee feel happy in being able to state that their individual and separate consideration of all the evidence now collected, and the reasoning both for and against the abolition of Inoculation which has been laid before them, has led each of them to one and the same conviction, namely, that the time has come and can no longer be deferred when this murderous trade should be suppressed; and they are not without hope that the following reasons for this opinion will have weight enough with the Bengal Government to procure its immediate and universal abolition.

First. It is proved beyond all denial by the unvarying and distinct testimony of the most orthodox and most learned interpreters of Hindoo Law and Theology, that the practice of Smallpox Inoculation is not a Religious Duty, that it is nowhere enjoined as such, that its omission is neither condemned nor commended, that neither reproach nor punishment, praise or blame attaches to its performance, and that the Cow Smallpox may be adopted by virtuous Hindoos without scruple in lieu of the more dangerous form of the Disease produced by Inoculation with the matter of Human Smallpox. Moreover that these two forms of disease are identically the same, and that the Divinity who presides over all those pustular diseases should be worshipped with equal veneration, faith, and purity in either case.

Second. It is proved and has not been even questioned or denied that however mild, generally speaking, may be the individual cases of Smallpox produced by Inoculation, it is nevertheless occasionally *fatal in these*; that it always may and very often does cause the Disease to spread by Contagion throughout a whole family, particularly in times of Epidemy; and that the disease is then just as severe and fatal as if it were caught *casually* in the streets. Every man therefore who adopts Inoculation is a wilful propagator of a mortal Disease among his neighbours, some of whom are perhaps unable to avoid him, and he personally and practically adds to the general diffusion of a death causing malady.

62. From information furnished to the Committee by Dr. Stewart and alluded to by him in his Report on Vaccination published in 1844, it was believed that

at one time the practice of Smallpox Inoculation was forbidden in Calcutta, but from the following Replies obtained from Mr. Blaquiere to the enquiries of the Committee, it would appear that the Police Regulation that was said to be then in force, was not at any time sanctioned or authorized by Government, and never became Law.

QUESTIONS TO MR. W. C. BLAQUIERE, AND HIS REPLIES.

CALCUTTA, 5th May, 1850.

Ques. 1st. Were you a Magistrate of Calcutta in 1804 ?

Ans. 1st. I have been a Magistrate of Calcutta since 1800.

Ques. 2nd. Was not Smallpox Inoculation prohibited then in Calcutta ?

Ans. 2nd. Not so, it was only discouraged, and Vaccination in lieu thereof was encouraged.

Ques. 3rd. Do you think that a Government Regulation, prohibiting Smallpox Inoculation, would at that time have been submitted to ?

Ans. 3rd. Certainly not without opposition. There was opposition on the part of opulent Hindoos to an interference with their long established usage of Inoculation.

Ques. 4th. Do you think such a Regulation could be more easily enforced now ?

Ans. 4th. No. It would be still more difficult now, owing to Vaccination having fallen into disrepute among the natives.

Ques. 5th. What do you attribute this to ?

Ans. 5th. The natives say many persons have taken the Variolous infection notwithstanding Vaccination, which was not the case in the days of Shoolbred. I myself vaccinated several hundreds at my Boitacanah house about that time, and offered encouragement to any of them who would, if they contracted Smallpox afterwards, come to me and report the occurrence ; only one such case was brought to my notice, and that upon investigation proved fallacious.

Ques. 6th. Does not the practice of Inoculation tend to disseminate the disease among the people ?

Ans. 6th. Yes, it does; many Inoculators from the adjacent districts resort to Calcutta expressly for the purpose every year.

Ques. 7th. Is the inoculated disease as infectious as the natural one ?

Ans. 7th. Certainly so, in my opinion.

Ques. 8th. Then ought not this practice to be forbidden, as thereby one source of disease among the people will cease ?

Ans. 8th. I do not think prohibition would be effectual, but I am of opinion it ought to be discouraged as much as possible.

Ques. 9th. By public enactments and penalties ?

Ans. 9th. I am averse to that mode of discouraging it, as it would not, I think, be effectual, and would be easily evaded and much opposed.

Ques. 10th. What measures then would you recommend ?

Ans. 10th. Verbal persuasion is all that I can suggest, particularly with influential natives.

Ques. 11th. Would it be well to attempt again as formerly to engage some of the chief *Ticcadars*, either by the offer of a sum of money in compensation for the abandonment of their business, or by a fixed salary or fee for every successful case they might Vaccinate ?

Ans. 11th. I do not think it would now succeed.

63. The following copies of a correspondence between the Secretary to Government, the Medical Board, and the Magistrates on this subject took place at that time; and has been placed in our hands by Mr. Blaquiere.

FROM G. DOWDESWELL, ESQ.,

TO W. C. BLAQUIERE, ESQ.

CALCUTTA, 9th April, 1809.

DEAR SIR,—I enclose a letter from the Medical Board, and shall be obliged if you will inform me what was done with the view of promoting Vaccine Inoculation. When the question was before discussed, I did not understand that any restrictions were imposed upon the Brahmins from inoculating in the old mode, nor do I conceive such restrictions would have been considered expedient by Government

Your's sincerely,

(Signed) G. DOWDESWELL.

(Enclosure.)

FROM THE MEDICAL BOARD,

TO JOHN LUMSDEN, ESQ.

*Chief Secretary to the Government.**Fort William, Medical Board Office, 9th April, 1804.*

SIR,—We are informed that a number of persons, calling themselves inhabitants of Kidderpore, have presented a petition to Government, stating that they do not choose to make use of Vaccine matter in the inoculation of their children, and praying that they may be permitted, as heretofore, to Inoculate with the matter of the Smallpox.

Conceiving that it will be desirable and satisfactory to His Excellency the Most Noble the Governor General in Council previously to his decision on this petition, to be possessed of the Report of the Medical Board on the progress and present state of Vaccine Inoculation in these Provinces, we request that you will state to His Excellency that the Report of the Board is now completed, and that in a very few days a fair copy of it will be submitted for His Excellency's perusal.

In the meantime we should consider ourselves highly reprehensible were we to neglect this opportunity of stating to His Excellency the apprehensions that have arisen in our minds from the possibility of a favourable reply being given to this petition; for it appears to us, that the free and licensed Inoculation of the Smallpox must immediately tend to obstruct the progress of Vaccine Inoculation, and ultimately defeat the benevolent design of the Institution.

Under these apprehensions, we beg also to state to His Excellency that the judicious restrictions hitherto imposed on the Inoculation of the Smallpox by the Police of this City, have evidently produced the most beneficial effects in diminishing the propagation of that disease and in extending the practice of Vaccine Inoculation; and that, whilst they are sufficient for these purposes, they do not seem to encroach either on the religious scruples or the civil rights of the inhabitants. The Inoculating Brahmins, it is true, will be deprived of the practice, but we presume that a little persuasion might prevail upon them to accept of an adequate remuneration, and also of employment in propagating the Vaccine disease.

As this question is more fully considered in the conclusion of the Appendix to the Report, it will be soon again presented to His Excellency's notice, and we therefore forbear to enlarge upon it further at this time.

We have the honor to be,

SIR,

Your obedient humble Servants,

(Signed) FRANCIS BALFOUR.

„ W. ROSS MUNRO.

FROM W. C. BLAQUIERE, ESQ.,

To G. DOWDESWELL, ESQ.

POLICE OFFICE, *12th April*, 1804.

MY DEAR SIR,—The steps taken by the Magistrates to promote Vaccine Inoculation were, directing the Police Officers to promulgate the advertisements published.

Promulgating the purport of them by beat of Tom-Tom ; Informing the Inoculating Brahmins who annually resort in considerable numbers to the Town and its environs from Jessore, of the means adopted by Government for extending the benefits of Vaccination, and recommending them to inoculate with Vaccine matter; and upon positive refusal to assist in forwarding the humane intentions of Government, prohibiting them from counteracting the said measures by spreading the fatal contagion of Smallpox throughout the Metropolis.

We perfectly agree with the Medical Board that an unrestrained propagation of the Smallpox must materially interfere with, if not ultimately defeat, the benevolent designs of the Institution set on foot for promoting Vaccination.

Persuasion has not been wanting in endeavouring to convince the Natives of the benefit of the Institution, and several who shewed reluctance in going to the Hospital, have since resorted to it; which, having convinced others of the mildness of the Vaccine Disease, and its superiority over the former dreadful distemper, numbers have flocked to Mr. Shoolbred whose zeal in the promotion of Vaccine Inoculation has been unremitted, and does him the highest credit. (Appendix cxcii.)

I remain,

My dear Sir,

Yours most faithfully,

(Signed) W. C. BLAQUIERE.

64. It is pretty evident to the Committee, notwithstanding the disclaimer now made by Mr. Blaquiere,

that the necessity for some such Police Regulation, in aid of the newly discovered Prophylactic was early felt, and that he was not the man who would then have shrunk from its enforcement had the prohibitory law, so earnestly prayed for by the Medical Board, been enacted.

65. For reasons which can only now be guessed at, the Government did not however deem it expedient to uphold the Police mode of *encouraging* Vaccination by any Legislative Enactment, and the practice of Smallpox Inoculation, together with those of *Suttee* and *Infanticide*, vindicated by ancient and established usage, continued for many years to be sanctioned by English law.

66. That the Regulation, however, actually for a time existed, or was understood to exist, and was quietly submitted to by the native community under the impression that it was the law of the land, may be still readily proved.

The following is the evidence of Baboo Radanauth Dutt of Simlah, in Calcutta.

CALCUTTA, 8th May, 1850.

Ques. 1st. Will you be so good as to state, for the information of the Committee, what you remember about your own Inoculation?

Ans. 1st. I do not recollect my own Inoculation, but I recollect that of my young brother's, which took place about 40 years ago. My mother removed with the child, then 4 years of age, to a place called Oolabariah near Budge Budge, in order to have him Inoculated there by the family *Ticcadar*.

Ques. 2nd. Why did she do so?

Ans. 2nd. Because I have a recollection that the Government at that time prohibited Smallpox Inoculation in Town, and the practice of removing for that purpose was then general. I knew many natives who were obliged to remove in the same way for some time. After some

years the practice fell into disuse ; many objected to it on account of the trouble it caused them. I don't recollect any one being ever punished for Inoculating in Town.

Ques. 3rd. Do you vaccinate or inoculate your own children ?

Ans. 3rd. They are all vaccinated.

(Signed) RADANAUTH DUTT.

67. The Committee cannot concur with Mr. Blaquiere in expecting any more favourable results from the measures which he now recommends than were produced by them formerly. It is quite true that persuasion and encouragement, example and precept, the schoolmaster and the doctor, have done much both in Calcutta and elsewhere to promote Vaccination ; but these alone will never *put a stop to Inoculation* while prejudice and intimidation, indolence and ignorance, the bigot and the quack are combined to uphold it.

68. In opposition to Mr. Blaquiere's opinion we would quote that of Mr. Elliott, the present Magistrate of the 24-Pergunnahs, viz.

"From all I have heard on the subject I cannot but believe that Inoculation is *the evil* to be contended with ; and I am most anxious to see it altogether prohibited by legislative enactment, and severe penalties prescribed." (Appendix page lxxxix.)

Dr. Wise of Dacca, in a forcible manner, urges the "abolition of Inoculation all over the length and breadth of the land." (Appendix page cciii.)

Mr. Deverinne informs us that he himself and many other influential landholders in Kishnaghur Zillah "annually give orders to have the *Ticcadars* turned out of their villages, and that not the slightest opposition is made to it." (Appendix page clxxxix.)

69. The Committee are nevertheless fully aware that reasonable objections have been made, and no doubt, may again be raised to the enactment of the prohibitory Law which they recommend; and they can well imagine that its enforcement may occasionally be evaded, may often prove troublesome, and may sometimes be difficult; but in support of their proposal, it is necessary to point out that with scarce one exception the opinion of all the Medical Officers of Government in Civil employ, or in charge of Town Hospitals and Dispensaries, is in favour of the abolition of Inoculation as an essential pre-requisite *step* to the general and permanent diffusion of Vaccination; that in several districts of the country—in Tirhoot, Bhagulpore and parts of Assam, &c., (Appendix pages cccxiv, cccxxv and cclxvi,) by the energetic and humane exertions of the Civil authorities, the practice has been already in this way suppressed, and the Inoculators excluded, and bound over not to practise again in the District; and that at Darjeeling, Cherrapoonjee and several other places from which Inoculators are thus excluded, the Smallpox has been for years past, unknown. (Appendix pages cclxvi and cclxxvii.)

70. It is believed also that all the Magistracy of Bengal are decidedly in favour of the proposed substantive measure, and that they require only to have the given authority of Government, in order to enforce it as Law, anticipating neither great difficulty nor opposition from any body. Finally, the long lists of names of wealthy and respectable native Baboos in Calcutta, and elsewhere (Appendix page clxxiv) on the best authority, shew that already a great mass of the

intelligent, respectable and wealthy Native inhabitants of the metropolis and of the country generally, although not perhaps constituting the majority of the population, profess their perfect readiness to abandon Inoculation, and their willingness to adopt Vaccination, and in some instances their decided preference of it as a safe measure, to the undeniably dangerous one of Inoculation.

71. The above considerations we would hope will prove sufficient to afford to His Honor a satisfactory assurance both of the probable popularity, and the certain practicability, of the proposed Measure, which nevertheless the Committee has already urged upon far higher grounds, namely, its present and pressing expediency.*

* From the *London Medical Gazette* of 10th May the following "Medical Intelligence" is quoted.

"*The Vaccine Report for 1850.*"

"The Registrar General remarks in this Report that few of the victims of Smallpox had been vaccinated, and that in one city, Norwich, between 200 and 300 persons were allowed to perish through the negligence of their parents in failing to avail themselves of the protection discovered by Jenner and placed at their disposal by the Legislature. It is complained that through the inattention of the public, sufficient statistical returns are wanting, notwithstanding repeated requests, to enable the Board to judge accurately of the extent of Vaccination in the United Kingdom. A Report to the Poor Law Commissioners is referred to in confirmation of what they have advanced, from which it appears that taking 627 Unions and Parishes in England and Wales, in the year ending September 1848, the number of persons under one year who were vaccinated, exclusive of those vaccinated at the cost of their parents, amounted to no more than 33 per cent. of the *total births* registered in the same period. Finally, attention is drawn to the absence of efficient measures of *Medical police calculated to check the progress*, or, if possible, extinguish this fatal disease. The Report concludes by a reference to the more rapid progress of Vaccination in Foreign Countries, owing to the *municipal measures or legislative enactments there adopted to promote its dissemination*, urging that unless a similar course be followed in England, it can never hope to be freed from its frightful scourge."

These latter grounds, if valid at all, ought, in our opinion, to outweigh in the eye of the Legislature all such futile objections as have their origin and support solely in ignorance, prejudice, and timidity, and which derive no countenance whatever from any religious prescription, or ancient popular usage.

72. But the Committee, in recommending the abolition of Inoculation, rely chiefly on the example of the British Legislature, which in July 1840, passed an Act of Parliament III. and IV. Victoriae, strictly prohibiting Smallpox Inoculation by any person soever, under the penalties of Felony. This Act (which is given at length in the Appendix page xiii,) provides as follows—

1st. “ Poor Law Guardians to contract with the Medical Officers, or other Medical Practitioners for Vaccination.

2nd. “ Guardians to conform to the Rules and Regulations of the Poor Law Commissioners.

3rd. “ Medical Officers to report numbers successfully vaccinated, &c.

4th. “ Contracts to be submitted to the Poor Law Commissioners.

5th. “ Contracts to be annulled if not approved of by the Poor Law Commissioners.

6th. “ Guardians of Poor Law Unions in Ireland to divide their Unions into districts, &c., and make annual contracts with Practitioners.

7th. “ Previous provisions with respect to Unions in England and Wales, to apply to Ireland.

8th. “ Punishment of Persons Inoculating, or otherwise producing Smallpox.

9th. “ Interpretation of words used in this Act.”

73. We would most respectfully submit that if in an enlightened country such as England, where the freedom of judgment and action is wholly unfettered; and where, in the exercise of such freedom, the practice of Inoculation was allowed to have full scope

long after it had been absolutely abolished in every other civilized Country in Europe; where Vaccination too was first discovered, and had therefore been longest practised, and its uses and benefits had become universally known to the people; where also it had all along met with the greatest public encouragement and support; it nevertheless was even there found necessary for the protection of the Community at large, and the salvation of the unthinking and improvident poor, to enact an arbitrary Law, and to expel from its shores the producers and the patrons and the promulgators of this murderous poison, then indeed is it the tenfold duty of the British Government of India to bestir itself now before further sacrifice of life is made, and to save from wilful self-destruction the ignorant and thoughtless millions, whom Providence has committed to its care and protection, and whose passive and confiding submission to British Rule should appeal more forcibly than any arguments to the humanity and generosity of Englishmen.

74. The Committee have not been able to procure any Parliamentary or other public Statistical documents, shewing the results of the above Act of Parliament since it came into operation, but it is understood to have worked well; for though not nominally so, yet in its practical effect, it became an Act for enforcing Vaccination on the whole population. With the penalties of that Act staring them in the face there was no choice, but that of accepting Vaccination, or exposure to the Casual Smallpox. The latter alternative, (coupling with it a passage through life in a state of constant and miserable suspense, the disorder perhaps seizing upon the individual at last

under circumstances the most distressing,) was such as no parent could seriously hesitate in rejecting, when once set before him. The whole population of England and Wales were, therefore, by this Act, virtually compelled to submit to Vaccination whether they liked it or not. At present in India the case is different; while Inoculation is allowed, no one can be blamed for adopting it; but this very licence, it is now seen, has mainly tended and still tends to obstruct the progress of Vaccination; and as was predicted so truly by the Medical Board in 1804, it has well-nigh at length succeeded in "defeating the benevolent designs of Government in founding a national Vaccine Institution."

75. Nor have the Committee been able to obtain documentary evidence of the mode and means by which the provisions of the Act for the better promotion of Vaccination in England and Wales have been carried out; but we are of opinion that the *Principles* on which its provisions are based are essentially sound, and are therefore perfectly applicable, and may be perfectly well adopted in India and everywhere else. These principles are—

First. The prohibition of Inoculation by the Supreme authority.

Second. The maintenance by Government of an unexceptionable Vaccine Lymph, particularly in populous cities.

Third. The liberal distribution of it to the poor, by trustworthy, and duly qualified Professional men.

76. SECOND SUGGESTION.—The details of any such scheme for Bengal might be entrusted to a Vaccine Board or a select body of Vaccine Commissioners,

authorized as the Poor Law Commissioners are at home, to contract with any duly qualified medical men, European or Native, or medical practitioners in particular Districts for the Vaccination of the poor; the persons so contracting being obliged to report their operations systematically and statedly to the Superintending Surgeons of Divisions, or the Local Magistrates, or some other competent Civil authority.

77. The following particulars have been obligingly supplied to the Committee by a Gentleman well qualified to do so by his position as Deputy Lieutenant of the County of Surrey, and his familiarity with the administration of the Poor Law in England; to which we beg particular attention.

QUESTIONS TO J. W. SUTHERLAND, ESQUIRE.

CALCUTTA, 5th May, 1850.

Ques. 1st. How long have you been a Magistrate of Croydon, and are you acquainted as such with the working of the Vaccine Extension Act of 1840?

Ans. 1st. I have held Her Majesty's Commission of the Peace, and acted as a Magistrate of Croydon for 14 years; also as an *ex-officio* member, and at one time chairman of the Croydon Union. I have had ample opportunity of noting the beneficial working of the Act you mention.

Ques. 2nd. Will you be good enough to inform the Committee what class of men are employed as Vaccinators?

Ans. 2nd. They are all regularly licensed Medical-men, practising in the Town of Croydon.

Ques. 3rd. How are they selected or nominated?

Ans. 3rd. They are selected and nominated by the Board of Guardians, subject to the confirmation of the Poor Law Commissioners in London.

Ques. 4th. How are they remunerated?

Ans. 4th. A fee of 1s. 6d. is paid by the Board of Guardians for every case of "successful Vaccination."

Ques. 5th. Do they receive fees or a salary for the performance of any other professional public duties assigned to them ?

Ans. 5th. The same Gentlemen may also attend on Midwifery cases, and are entitled to 15s. 6d. for each case. Both Vaccine and Midwifery cases are reported by them regularly at the weekly meetings of the Board, and are entered in regularly kept Books. Many of those Gentlemen are also regularly employed, and salaried "Medical Officers" of one or more of the Districts or Parishes comprised in the Union. But other private practitioners, resident in Croydon, may also claim the same fees for Vaccination or Midwifery cases occurring among those entitled to Parish Relief.

Ques. 6th. Is it imperative that persons requiring Vaccination shall come to such Medical practitioner, or is he obliged to *visit them* for the purpose if required to do so ?

Ans. 6th. By the Act it is incumbent on the Parents to bring their children to the residence of the Medical Officer or to the Workhouse, for the purpose of Vaccination. But it frequently happens that in the course of their professional rounds the operation is performed, and the necessary inspection made at the house of the parties vaccinated.

Ques. 7th. How is the accuracy of the Vaccinator's reports, both as to number and success of his operations, tested and ascertained ?

Ans. 7th. A regular Book of entries or registry is kept by each Medical Officer of the Union ; and this is submitted for inspection and confirmation every week to the Board of Guardians at their weekly meetings, as I before said. These Reports are capable of corroboration, or otherwise, by the "Relieving Officer" of the District in which the case or cases arise, who, in the exercise of his daily duties, while visiting and relieving the poor, becomes necessarily cognizant of what has been done by the Medical Officer. During the long period of my own experience as a Magistrate and *ex-officio* Member of the Board of Guardians I have never known an instance of the slightest doubt or suspicion attaching to the Report of the Medical Officers. The heart and soul of our Medical Officer (Mr. Bottomly) was in his work, and the other Medical Officers very generally discharged their duties satisfactorily.

Ques. 8th. Is Smallpox Inoculation now ever attempted, or sought for ? Have you had occasion to punish it ?

Ans. 8th. I believe it is still surreptitiously practised by some unprofessional men, and is certainly sought after still among the ignorant and poorer classes. I have never had a tangible charge, however, laid

before me under the Act. On one occasion, from information derived from the Police, I was led to believe that the existence of Smallpox in my neighbourhood was attributable to Inoculation. I caused public notice to be given that all persons found guilty of offending against the provisions of the Act, would be proceeded against with the utmost rigour of the Law. Since then I have not been able to trace the origination or spread of Smallpox to the practice of secret Inoculation.

Ques. 9th. Is Vaccination popular in Croydon? Can you say what proportion of children born in any year remain unvaccinated after attaining 12 months of age?

Ans. 8th. I should say that Vaccination is *universal* among the upper and middling classes of the people. But I cannot venture to answer the latter part of the question. I have no doubt the information, in most authentic form, is obtainable at the Office of the "Registrar General."

78. The following letter addressed to Dr. G. H. Alloway, formerly one of the principal Medical Officers at one of the largest Hospitals in Dublin, and till recently a practitioner in that City, has also elicited some very valuable information relative to the working of this Act in Ireland.

FROM DR. D. STEWART,
TO DR. GEORGE H. ALLOWAY, M. R. C. S.

DEAR SIR,—The Smallpox Committee desire me to apply to you, with a request that you will obligingly favour them with answers to the following questions:—

1. In what way are the provisions of the Vaccine Extension Act of 1840 carried out in Ireland, and more especially in Dublin?

2. What class of professional men are engaged or contracted with for vaccinating the poor?

3. What remuneration is given for such cases?

4. How are the accuracy of their Returns, and the success or failure of their operations ascertained?

5. Is Vaccination popular in Ireland? To what extent is it practised in Dublin?

Your early reply will very much oblige the Committee.

Your most obedient Servant,

D. STEWART, M. D.,
Off. Secy. to the Committee.

CALCUTTA,
3rd May, 1850. }

DR. ALLOWAY'S REPLY TO THE ABOVE.

CALCUTTA, 4th May, 1850.

DEAR SIR,—It gives me great pleasure to reply to the questions submitted to me through you, by the Smallpox Committee.

1. The Provisions of the "Vaccine Extension Act" of 1840 are carried out in Ireland by the different "Boards of Poor Law Guardians" in their respective districts, in the following manner. In some districts once in 12 months, and in others once in every 6 months, candidates possessing the necessary qualifications are publicly requested to send in *tenders for contracts* for the ensuing period, at so much for each successful case. It does not follow that the lowest offer is accepted; the Board have the power of taking into consideration other reasons for determining their choice. In Dublin the same course is pursued, except that each Poor House district is subdivided; the contracts are frequently given to a Hospital when centrally situated, and where there is none such, to some resident practitioner approved of by the Board.

2. None but a properly educated and (where possible) experienced Physician or Surgeon is now selected; many cases of Vaccination are imperfect, which might be certified as *successful* by an inexperienced person, and which would be no protection against Smallpox, and would only tend to bring Vaccination into disrepute with the lower orders of the people. This was found to be the case when the Act was first put in force in the country parts of Ireland; the Boards of Guardians through mistaken economy giving the contracts to Apothecaries and their assistants, who considered it quite sufficient to perform the operation; but not carrying out the spirit of the Act, they were enabled to take the contracts at a low rate.

3. The remuneration in Ireland was at first about the same as the average in England, namely, 1s. 6d. for each successful case, but for the reason mentioned in the last paragraph it was found needful not to take the lowest tender in all cases, as it was a matter of great consequence in Ireland, to take every possible step to inspire the lower order of people with confidence in Vaccination, and to remove their strong prejudices in favour of Inoculation, and this could not be more effectually done than by taking great care to *ensure success* for the first few years.

The contracts afterwards approved of, were generally at 2s., or in some remote places 2s. 6d. for each successful operation.

4. The accuracy of the Returns must, of course, depend greatly on the integrity of the Vaccinator; this was one reason why it was found inexpedient in Ireland always to take the lowest offer.

No cases were *returned* unless those certified as *successful*. If there was any cause apparent why success should not follow the operation of Vaccination (such as disease of the skin, &c.) it was removed before another attempt was made; if there was no apparent cause, it was repeated with additional precautions to ensure the absorption of the Vaccine lymph; but in no case was there any Return of failures enjoined.

Each Vaccinator was furnished with a book of Certificates in the form of a Bank Cheque Book. On the success of each case being ascertained one of these Certificates was filled up by him and delivered to the parents of the child; another book was also kept by him in which each Case was noted; when this book was filled, it was deposited with the Secretary of the Board of Guardians. The people were enjoined to preserve these Certificates, and it was held out to them that future advantages would result to the possessors of them in entering Government employ, and in other ways; and latterly emigrants were refused a free passage unless they could produce evidence of the younger members of the family having been vaccinated. In England this was not so necessary where there was little or no prejudice in favour of Inoculation; but in Ireland where Inoculation was practised to a large extent in the agricultural districts, and where Small-pox annually raged, it was at first necessary to hold out some prospect of future benefit to induce them to come forward willingly.

5. Vaccination was not at all popular in Ireland at first; we were obliged to bring many to punishment before the itinerant Inoculators were suppressed; and even in many cases to extend the punishment to

the parents, which in Ireland seemed to have more effect. Vaccination is now general,—being the rule,—and Inoculation the rare exception : in Dublin for many years Vaccination has been general. I do not believe that any case of Inoculation ever occurs there now.

I am, dear Sir,

Your obedient Servant,

(Signed) G. H. ALLOWAY.

79. It will be seen that a fee of one shilling and six pence is paid in England, and of two shillings and six pence in Ireland to the Medical practitioner holding the *contract* for Vaccination for every case “ successfully vaccinated ” by him ; and although this Committee do not presume to prescribe the limits of Government liberality in India, nor to estimate the value to the country at large of every life thus rescued from imminent peril, yet we may be allowed respectfully to suggest that the sum of 8 annas for each *successful case* might fairly be allowed in India to the Medical Officer employed, and that where no contract can be made with a qualified *resident* practitioner, a fixed monthly salary should be also given to a Vaccinator during six months of the year.

80. THE THIRD SUGGESTION, which the Committee have to offer is, that which was recommended by the Medical Board in their letter of 16th November 1848 (Appendix page cccclvii) viz., that except at large Towns, or at Hill Stations, the practice of Vaccination by the Government contracting Officers should be discontinued during the hot Season and Rains, but be resumed annually in October, so as to anticipate the usual period of annual invasion of Smallpox, and

should then be carried on actively from 1st October to March 31st, in all the villages of Bengal, and have the special co-operation of the Civil Authorities in every possible way, not compulsory.

81. **FOURTH SUGGESTION.**—It is thought by the Committee that besides the Native Vaccinators thus employed, it will be necessary that a certain number of Medical Officers of the Company's Covenanted Service on fixed salaries and with travelling allowances shall be appointed, as at Bombay, Superintendents of Vaccination over certain districts, who shall, during the six months before named, be directed to travel round the towns and villages in which the contracting Vaccinators are employed, and minutely to inquire into their proceedings, and satisfy themselves of their fidelity, competency and activity, reporting thereon at the end of their tour of visitation to the Government Commissioners or Vaccine Board. Whether these Gentlemen should be permanently attached to the Government Vaccine Staff, or be appointed annually for this special duty, which necessarily occupies them for only six months of the year, is not a matter for this Committee's consideration.

82. **FIFTH SUGGESTION.**—The Committee are of opinion that all recruits for the Company's Army and Navy should be vaccinated, as is done in Madras, and in the Queen's Service ; and that minute and careful returns of all such operations should be made by the Company's Military Surgeons to the Superintending Surgons of Divisions similar to those of the Queen's Army (as described by Surgeon W. Harvey of Her Majesty's 70th Regiment, in his letter to the Secretary of this Committee, given in the Appendix page clii.)

83. SIXTH SUGGESTION.—The Committee consider that in abolishing Smallpox Inoculation the large body of men hitherto occupied in that business will be thereby suddenly deprived of a part of their wonted income; also that these men have heretofore been publicly practising with the full knowledge of Government an honest and thriving trade, laying claim to something of a religious character, and which is generally popular; further that this practice has never been prohibited nor objected to by the Government; and under such circumstances it is the opinion of this Committee that, should a prohibitory Law be now enacted, which must necessarily deprive these men of a portion of their income, they are fully entitled to some compensation for the privation they will thereby suffer. Not so, however, with the priesthood and Brahmins; for it has been declared by the highest Hindoo Law authority, expressly and distinctly, that, “the Vaccine disease is in reality a modification or variety of Smallpox. Such being the case, virtuous Hindoos when vaccinated, should, with veneration, faith, and purity, observe the same religious ceremonies they do when attacked with Smallpox.” The Brahmins, therefore, can lose nothing by the abolition, and it will be their interest to promote Vaccination.

The Committee would, therefore, recommend that the proposed Vaccine Commissioners should be directed to take evidence and collect information regarding the actual annual receipts of each of the long established *Ticcadars* in the country, and to apportion to them (with the consent of Government) a moderate equivalent compensation, not exceeding one year's income, computed from the average of 5 years' receipts,

for the compulsory relinquishment of this branch of their business.

It would of course be necessary in all such cases to exact from each a formal engagement, under very heavy penalties, that they shall thenceforth cease from inoculating; and it might still be discretionary with the Commissioners to grant to any of them, after due examination, and trial, and securities given, a licence or *contract for vaccinating* should they desire to adopt that, instead of the prohibited practice, and be considered *qualified*.

84. To enumerate briefly these suggestions, they are as follows:

First. The prohibition of Smallpox Inoculation under Penalties.

Second. The appointment of a Vaccine Board, and the employment as Vaccinators of duly qualified professional men only, by contract, at 8 annas for every case "successfully vaccinated."

Third. The discontinuance of these contracts, and of Vaccination, by Government Officers during six months of the year, from 1st April to 31st September.

Fourth. The appointment of several Covenanted Medical Officers, as at Bombay, to travel through the country during the other six months of the year, visiting all the Vaccine Depôts within a certain District, encouraging, practising and promoting Vaccination, examining strictly into the proceedings of the contracting Native or other Vaccinators, and reporting annually to Government.

Fifth. The Vaccination of all Recruits in the Army and Navy, and the institution of regular Vaccination

Returns from Army Surgeons as in Her Majesty's Service, and the Madras Army.

Sixth. The grant of a moderate compensation to the *Ticcadars* who shall by the proposed Law be debarred from henceforth earning a *livelihood* in this way, such compensation to be estimated by the Board of Commissioners, and submitted by them to Government.

85. Many other suggestions have occurred to the Committee as worthy of being submitted to His Honor's consideration, in connection with the objects of this Report, they being such as relate to Sanitary improvement, drainage, sewerage, and ventilation of the Town, the Registration of births and deaths, and diseases causing death, in all the towns of Bengal, the establishment of Smallpox Hospitals, and compulsory removal of the infected to them, &c. &c.; but the Committee feel assured that all these matters will have His Honor's consideration at a more fitting time; and they therefore abstain at present from doing more than alluding to them, being anxious to conclude this Report, and to express their earnest hope that no time may be lost before the important present subject of Smallpox *prevention* may be dealt with by the Legislature of Bengal.

86. Besides the above, a number of other plans and proposals have been laid before us by persons sincerely anxious to promote the more general diffusion and efficiency of Vaccination among the people of Bengal. Many of these we think very good, and calculated to have this effect, in more or less degree; but being mostly all of them founded on partial and imperfect views of temporary expediency, or of local

applicability, we deem them secondary to that more comprehensive and substantive measure which the experience of nearly half a century has now taught us to consider essentially necessary, as a *preliminary* to any general scheme for this purpose in India, however zealously promoted by individual philanthropy or lavishly supported by a liberal and humane Government.

87. To one only of these schemes we would beg to direct His Honor's notice as in our opinion advisable at least in Calcutta, at the present juncture, when threatened with a renewal of the Epidemic. It is that which was recommended by the Superintendent General of Vaccination in his published Report on Smallpox in 1844, (page 252), namely, "the bestowal of a small sum of money, on every poor native Mother, who should carry her infant to one of the Town Dispensaries for the performance of the Vaccine operation by the Resident Medical Officer, and should present herself again there on the 6th or 8th day following, with the same child, for *inspection* and registration, and to *supply* from its arm fresh *lymph* to *vaccinate others* with."

88. Dr. Stewart informs us that in March of the present year he obtained the ready sanction of Government to the distribution in this way of the sum of Rupees 112-13-0 *per mensem*, as an experiment for 3 months; (Appendix page cxciv) and it will be seen from the Reports of Mr. Daly, Mr. Naylor and Mr. George, that the best results may be expected from this plan in Calcutta, if followed out under vigilant superintendence, and at the fitting Season : Dr. Stewart states that owing to the advanced season of the year,

and other untoward circumstances, he felt obliged to relinquish the experiment at the end of one month; but that he intends to make a special application again to Government, through the Medical Board, for leave to renew the attempt so soon as the annual supply of fresh lymph arrives from Europe in October, and the proper Season for vaccinating shall again commence.

89. The Committee entertain a sad and serious apprehension that although the extreme violence of the present Epidemic has now subsided, in accordance with the usual course of such visitations in Calcutta, it will certainly burst out again with renewed fatality, in the month of December next, unless immediate and active measures are taken for its prevention, and for the diffusion of a genuine Vaccine protection early in the cold weather.

G. LAMB, *Physician General.*

J. FORSYTH, *Surgeon,*

Secy. Medical Board.

RUSSOMOY DUTT,

Judge, Small Cause Court.

W. T. LAW, *Supt. Police of Calcutta.*

RAMGOPAUL GHOSE.

MODOOSUDUN GOOPTO,

Pundit, &c. Medical College.

D. STEWART, M. D., *Pres^{cy}. Surgeon.*

and Supt. Genl. of Vaccine.

CALCUTTA, }
1st July, 1850. }

SUPPLEMENTARY NOTE

BY

DR. D. STEWART.

THE Superintendent General of Vaccination is happy to be able to add to the preceding Report that while these pages have been passing through the Press, he has received by the Overland Mails of 26th July and 7th August, two most ample supplies of fine English Vaccine Crusts and Lymph on glasses and ivory points, which had been forwarded to him through the India House by the Medical Director of the London Vaccine Institution, with his wonted annual punctuality and care.

From the first of these Packets he found himself able to spare a few Crusts, &c. for dispatch to Moulmein by the out-going Steamer of the 9th instant, in compliance with the earnest solicitations of several Medical Officers in the Tenasserim Provinces for an early supply of Lymph ; from the remainder he has been fortunate enough, notwithstanding the still unsuitable state of the Season, to “vaccinate successfully” several Bengallee children, and he hopes by practising and enjoining the utmost vigilance in every case of transmission from these to others, towards the end of next month, (after the *Doorgah Poojah* holidays,) to be in a position to supply the Profession and the Public in Town and Country with unexceptionable Vaccine.

21, CHOWRINGHEE ROAD, }
19th September, 1850. }

APPENDIX.

A P P E N D I X
TO THE REPORT
OF THE
SMALLPOX COMMITTEE.

*Dr. F. J. Mouat to
J. P. Grant, Esq.,
dated 4th Feb. 1850.*

(Copy.)

No. 242.

FROM THE SECRETARY TO THE COUNCIL OF EDUCATION,
TO J. P. GRANT, Esq.

Secretary, Government of Bengal.

Fort William, 4th February, 1850.

SIR,

I have the honor, by direction of the Council of Education, to report for the information of Government, that four Students of the Medical College have fallen victims to Smallpox which is reported to be raging with great virulence in and around Calcutta. Five others have been attacked by the disease in a milder form.

Every precaution has been taken to prevent the spread of the disease within the College, but it is very difficult to do so in the ill-ventilated, damp and unhealthy quarters occupied by the Students of the Hindoostani class. The Council, therefore, beg again urgently to press upon the attention of Government the necessity of improving the ventilation of those quarters to the extent recommended by the Committee, of which Lieut. Col. Greene, of the Engineers, was President. Should the progress of this dangerous disease continue, it will become necessary to place the Students elsewhere, and break up the class for a short time, a measure that will be both expensive and inconvenient to the public service.

While upon this subject the Council venture to suggest to Government the advisability of appointing a mixed Committee of European and Native Gentlemen to enquire into the extent of the periodical ravages of Smallpox amongst the Natives, from the continuance of the practice of Inoculation. Although a very large amount of public benefit has resulted from the labours of the Superintendent General of Vaccination, it is believed that much of this good has been neutralized by the class of Inoculators still in existence, and it is also probable that nothing short of a penal prohibition of the practice will succeed in putting a stop to it.

I have, &c.,

(Signed)

F. J. MOUAT, M. D.,
Secy. Council of Education.

No. 69.

*H. V. Bayley, Esq.
to the Medical Board,
dated 20th Feb. 1850.*

FROM THE OFFG. UNDER SECRETARY TO THE GOVERN-
MENT OF BENGAL,
TO THE MEDICAL BOARD.

Dated 20th February, 1850.

GENTLEMEN,

I am directed by the Hon'ble the Deputy Governor of Bengal to transmit the accompanying copy of a letter from the Secretary to the Council of Education, No. 242, dated the 4th instant, and to request that the Board will favour the Government with their opinion on the suggestion of the Council for the appointment of a Committee to enquire into the extent of the periodical ravages of Smallpox among the Natives, from the continuance of the practice of Inoculation, and the most appropriate means of preventing evil from that source.

I have, &c.,

(Signed) H. V. BAYLEY,

Offg. Under Secy. to Govt. of Bengal.

(No. 58 of 1849-50.)

No. 1053.

FROM THE MEDICAL BOARD,
TO MAJOR GENERAL THE HON'BLE SIR JOHN HUNTER
LITTLER, G. C. B.,
Deputy Governor of Bengal.

*Letter of the Medi-
cal Board to the Hon.
Sir John Littler, da-
ted 25th Feb. 1850.*

Fort William, 25th February, 1850.

HON'BLE SIR,

We have the honor to acknowledge Mr. Bayley's letter No. 69, of the 20th instant, with copy enclosed of one from Dr. Mouat, Secretary to the Council of Education, requesting our opinion regarding the proposal therein submitted, to assemble "a mixed Committee of European and Native Gentlemen to enquire into the extent of the periodical ravages of Smallpox among the Natives, from the continuance of the practice of Inoculation." In reply we would remark, that we consider the appointment of such a Committee of investigation desirable, as, if their labours have no other consequence, they will probably have the effect of reviving the confidence of the people in Vaccination, as has usually been the case when any agitation of this question has taken place.

Letter of the Medical Board to the Hon. Sir John Littler, dated 25th Feb. 1850.

2. It is not expected, we believe, that we should give any opinion as to the probable result of the proposed inquiry as demonstrating the propriety, or safety, of prohibiting Smallpox Inoculation by law ; but we may observe, that much difficulty will, in all likelihood, be experienced in enforcing such a law, because it is a practice which has been in existence for ages, and one in which the people repose much confidence. It may therefore be anticipated that they will abandon the practice of it with very great reluctance, and with all the facilities which their mode of life presents, it will no doubt be long pursued clandestinely after it ceases to be the rule to do it openly as at present.

3. The presence of Smallpox in a house or quarter of the Town would be no proof of its having originated in Inoculation, for it is almost unnecessary to assert here, that there is no more reason to doubt that Smallpox breaks out spontaneously in all parts of India every year, than that it came into the world originally without the aid of Inoculation, or than that it was known but too well as a common and fatal pestilence in Europe before the introduction of Inoculation by Lady M. W. Montague in 1721. We think, therefore, that if Inoculation is to be made penal, this fact ought to be well looked to, otherwise the law will prove an instrument of great oppression and exaction through the misconduct and knavery of the subordinate agents who may be appointed to ensure its observance.

4. We shall not be suspected of desiring to encourage Inoculation or any other system, the tendency of which may be to perpetuate so foul and fatal a malady as Smallpox, to the exclusion of the practice of the Vaccine preventive ; but as this last has made so little progress in the estimation and confidence of the people after so many years' assiduous perseverance on the part of its advocates and agents, it may be a question whether it will be either right or safe to take away from the people such protection as is afforded by Inoculation, until, by such liberal expenditure of money, as will admit of the employment in the Department of Vaccination, of men only, who by religion and caste, will be acceptable to all classes of the people, and whose professional education and responsibility of position among the community will furnish fit guarantee for their earnestness and honesty in the cause ; or, in other words, until a Vaccine Staff is authorized, sufficiently respectable and numerous, that will be ready to supply the place of the Inoculators. By some such means, we think it is far from rash to predict that the benign

protective disease will be recommended to the hearts of the people of India, and the trade of Inoculation, or "Teekadaree," effectually supplanted without the aid of any enactment whatever. It is unnecessary to dwell on this point at greater length at present, as when the means are forthcoming, the men will doubtless be forthcoming also ; and we would only add, that we consider the present race of Native Vaccinators to be mostly made up of the basest and most untrustworthy of their countrymen. The grounds of this belief have been frequently laid before Government, in the Report, for instance, of Dr. Cameron, Superintendent General of Vaccination, which was printed in 1831, and in that also of the present Superintendent General, Dr. D. Stewart, which was printed in 1844 ; as well as stated in the numberless communications on the subject which have passed through our office in the course of the last 25 years. The last occasion on which we adverted to the subject was our letter No. 56 of the 16th November 1848.

5. We may further be allowed to state, that we understand it to have been some such feeling, as is adverted to in the above para. 4 that dictated the reply of Government, as communicated in Mr. Turnbull's letter, No. 604, of the 22nd April 1844, an extract of which is annexed,

6. In conclusion, we would respectfully solicit attention to the fact stated in Dr. D. Stewart's Report of 1844, on Mr. Blaquiere's authority, that, with the sanction of Lord Wellesley, a Police, or Municipal, Regulation was passed in 1805, prohibiting Smallpox Inoculation within the limits of the Town. It is not said anywhere, that we are aware that the enforcement of this regulation caused any great sensation among the inhabitants ; and so far as regards them, we do not suppose that should any fresh law or regulation be deemed necessary at the present day, it would meet with any more serious opposition than it did on that occasion ;—the regulation alluded to gradually fell into desuetude, but why, or when, it ceased to be enforced is not stated.

We have, &c.,

(Signed)	G. LAMB, <i>Physician General.</i>
„	W. S. STIVEN, <i>Surgeon General.</i>
„	J. THOMSON, <i>Inspr. General.</i>

FORT WILLIAM,
MEDICAL BOARD OFFICE,
The 25th February, 1850.

Letter of the Medical Board to the Hon. Sir John Littler, dated 25th Feb. 1850.

Mr. Turnbull's letter to the Medical Board, dated 22nd April 1844.

EXTRACT of a letter from MR. TURNBULL, Under Secretary to the Government of Bengal, Judicial Department, to the MEDICAL BOARD, No. 604.

Dated 22nd April, 1844.

At the same time, I am instructed to add that the adoption of the Commissioner's proposal, for the issue of orders prohibiting Inoculation, is not calculated, in His Honor's opinion, to make Vaccination more popular than at present among the Natives of the Province,* whilst it would deprive them of one method, imperfect though it be, of mitigating the virulence of the original disease.

* Arracan.

(True Extract,)

(Signed) J. FORSYTH, Surgeon,
Secretary, Medical Board.

(No. 56 OF 1848-49.)

No. 710.

Letter of the Medical Board to the Hon. the Deputy Governor of Bengal, dated 16th Nov. 1848.

FROM THE MEDICAL BOARD,
TO THE HON'BLE THE DEPUTY GOVERNOR OF BENGAL.

Dated 16th November, 1848.

HONORABLE SIR,

We have the honor to acknowledge the receipt of Mr. Dalrymple's letter No. 914 of the 17th May last, with copy annexed of a communication, No. 472, of the 13th idem, from the Secretary to the Government of India, Home Department, requesting us to report the opinion we may have formed upon an examination of the several District Returns of Vaccination, and calling our attention to the unsatisfactory results of the Vaccine operations as shewn in the Returns from Patna, Allahabad, Mynpooree and other places.

2. The ordinary and occasional causes, which occur to interrupt the success of Vaccine operations in this Presidency, are numerous, and they exert their influence so variously at different seasons and at different localities, that we feel little surprise on learning that it has failed altogether at a particular station, or that a year of extraordinary success, at a given locality, has been succeeded by one of partial or total failure. But as the month of February is one during which, for several reasons, the practice of Vaccination is everywhere attended with the most encouraging success, we were not prepared for the falling off which the

Returns exhibited for that month particularly at Patna, where the results are more uniformly favorable than at other principal Vaccine Depôts in either the Lower or Upper Provinces, and we waited for the explanation of the circumstances which we expected would be furnished by the Annual Reports of Medical Officers of Civil Stations, that we might have it in our power to submit a decided, if not a very satisfactory, reply to Mr. Dalrymple's letter.

Letter of the Medical Board to the Hon. the Deputy Governor of Bengal, dated 16th Nov. 1848.

3. The Annual Vaccine Return of the Civil Surgeon of Patna has enabled us to detect the error in the Superintending Surgeon's Monthly Report for February, which being copied into our General Report for that month, gave rise to the remark in Mr. Bushby's letter. The number of successful cases, out of a total of 591, was 559 and not 32, as set down in the Superintending Surgeon's Return, which is annexed for your Honor's inspection. Vaccination at Patna failed altogether in the end of September of the past year, and was not in full play again until about the middle of December.

4. As respects Allahabad, Mynpooree and other stations in the Upper Provinces, we would remark that comparative failure has for years been the rule rather than the exception, and this will be instantly apparent to your Honor on a reference to the annexed Table which shews the result of Vaccine operations for the last eight years at several of the principal and subordinate Civil Stations of the Lower and Upper Provinces.

5. Besides this result, the Table, it will be seen, demonstrates very clearly how much more favorable is the climate of Bengal, and perhaps other circumstances to the dissemination of the Vaccine, both as regards the number of operations, and the success which attends them, than in the North-Western Provinces.

6. Among the causes of failure, which are more or less constantly in operation, chiefly in the Upper Provinces, may be enumerated.

1. The caste and religious prejudices of the native population in most localities, and their apathy and indifference in all.

2. The extreme heat and probably dryness of climate on the one hand, and its extreme and noxious humidity on the other.

3. The absence of Epidemic Smallpox.

4. The quality of the Vaccine virus.

5. The absence of earnest zeal in the cause, on the part of Civil Officers in authority in the district, and the consequent indifference of their subordinates.

6. The temper, tact and zeal of the Civil Surgeon.

Letter of the Medical Board to the Hon. the Deputy Governor of Bengal, dated 16th Nov. 1848.

7. The zeal, tact and honesty of the native Vaccinators.

8. The activity of the *Ticcadars*, or Smallpox Inoculators.

1st. The religious prejudices of the people of the Lower Provinces seem, whatever may be the cause, to offer a more feeble barrier to the spread of Vaccine than is met with in the Upper Provinces, even among those whose locality and avocations bring them there into frequent intercourse with Europeans ; but the innate apathy of the people is nearly equal in both Divisions and therefore except under the influence of panic during the actual prevalence of Epidemic Smallpox they rarely, if ever, spontaneously seek the protection of the prophylactic Vaccine ; and it is partly owing to the pressure of this great dread that Vaccination is more general in the months of January, February and March, and part of April than at any other season of the year, because it is during those months that Epidemic Smallpox breaks out yearly and prevails with greatest virulence, and it is owing to the temporary coolness of the season that a larger proportion of the operations is then attended with success.

2nd. The extreme heat of the season, after the middle of April, seems to exert a most unfavorable influence on the virtues or vigour of the Vaccine virus, especially in the provinces westward of Patna where intense heat is generally accompanied with intense dryness ; for the insertion of the virus either ceases to produce any effect whatever, or is followed by a spurious pock or pustule which ensures no protection from the more loathsome and dangerous disease.

It is remarkable that extreme heat appears to be nearly as inimical to the propagation of Epidemic Smallpox as it undoubtedly is to that of the protective disease, for the former also generally begins to decline about the close of April.

During the rainy season, on the other hand, particularly in some if not all the districts of Lower Bengal the simple puncture for the insertion of the Vaccine virus produces violent inflammation, which degenerates into a foul sloughing sore ; or that kind of degeneration succeeds the maturation of the vesicle, instead of drying up benignly as it always does in favorable circumstances. In both cases the Vaccination must necessarily be suspended for a time.

3rd. The absence of Smallpox operates in the way already adverted to in withdrawing the pressing stimulus of fear which, for a short-lived space, overpowers both prejudice and apathy, and forces parents and relatives to resort to the Vaccinator for protection.

4th. The quality of the virus often influences the numbers borne in the Returns ; as it is well known, by successive transmission, to become altogether *effct* or to prove abortive as a prophylactic, and this it has been frequently found necessary to correct, by renovated matter, from a different part of India and even from England itself.

Letter of the Medical Board to the Hon. the Deputy Governor of Bengal, dated 16th Nov. 1848.

There can be no question of the beneficial influence which has been exercised in this regard for the last four years by the transmission, annually in July and August, by the Hon'ble the Court of Directors, of supplies of Vaccine from the London Depôt direct, by overland route, both to Calcutta and Simlah.

5th. We have not failed to remark that where a real friendly and warm interest is taken by the Civil Authorities of a district in the general welfare of the people, and in the cause of Vaccination, that the success of the Civil Surgeon and his Vaccinators is apparently enhanced. This kind of interference, however, must be exercised in most situations in the Upper Provinces, with much tact and without any show of official authority, for although in Lower Bengal it now creates little or no uneasiness among the people, it has been known in the Saugor Territories to hurry a whole district into a state of alarm and excitement bordering on insurrection.

6th. A good deal must also depend on the personal character of the Civil Surgeon, for if good-tempered, gentle in demeanor and easily accessible, his influence with the Natives of the Station and District will be always acknowledged, and he will have numberless opportunities of turning it to good account in promoting the cause of Vaccination.

7th. It is impossible to calculate the amount of mischief which the Native Vaccinators work in depreciating the value of the very disease which they are paid to disseminate ; and we have repeatedly had occasion to bring under the notice of Government the fact that away from the immediate supervision of the Medical Officer, no reliance can be placed in their Returns, either as to the number of operations or the genuineness of the disease they are propagating ; and we are persuaded that much of the unpopularity of Vaccine may be traced in certain districts to the reckless and dishonest practices of these public servants, either in taking bribes for forbearance in not forcibly practising Vaccination (which they have shamelessly pretended that they had the authority of Government for doing,) or persisting heedlessly in propagating a spurious disease which was tedious and painful in its immediate consequences, and has subsequently been found to have given no protection from Smallpox, or in lending

Letter of the Medical Board to the Hon. Deputy Governor of Bengal, dated 16th Nov. 1848.

themselves for hire to propagate Smallpox by inoculation instead of the protective Vaccine.

8th. There is a class of persons named *Ticcadars* who take advantage of the annual panic produced by the appearance of Smallpox, by anticipating by a short time the usual season of its approach, and travel through entire districts practising Smallpox Inoculation as they go, and their advent is, we believe, rather welcomed by the people than otherwise as ministers of the goddess *Situla*, against one of whose attributes the practice of vaccination is held to militate impiously. Proposals have repeatedly emanated from humane persons in the Civil and Medical Service to put down these *Ticcadars* by authority, but Government has given no countenance to such arbitrary procedure, as it would surely be unwise, to say no more, to take away this kind of protection, such as it is, before one can be substituted that shall prove more acceptable to the subjects of the experiment. For these reasons we have, for some time, had it in contemplation to submit, for the consideration of Government, a proposal for suspending the practice of Vaccination during a portion of the year at all the Vaccine Stations above Benares, that is to say, from the 15th April to the 1st November, and that during the remaining portion of the year a certain number of Medical Officers should be appointed, as in the Bombay Presidency, to travel continually through all the Districts in the Upper and Lower Provinces, in which Vaccination is practised, who should industriously occupy themselves in the practice of Vaccination and carefully inspect the operations of Native Vaccinators engaged in those Districts at too great a distance from the Civil Station to admit of the effective superintendence of the Civil Surgeon.

7. During the interval, from the 15th April to the 1st November, the Civil Surgeons would consider it to be their duty still to endeavour to keep up the Vaccine among the children of Europeans of public and domestic servants, and of the inhabitants of the Station or Sudder Bazar.

8. The Vaccinators might be profitably employed during the same time as compounders in Jail Hospitals or as Vaccinators still under the orders of the Sub-Assistant Surgeons at stations where Government Charitable Dispensaries have been established.

We have the honor to be, &c.

(Signed) G. LAMB, *Phys. Genl.*

FORT WILLIAM,	}	„	W. S. STIVEN, <i>Surgn. Genl.</i>
MEDICAL BOARD OFFICE,		„	J. THOMSON, <i>Inspr. Genl.</i>
16th November, 1848.			

Table showing the State of Vaccination at several Stations of the Upper and Lower Provinces, of the Bengal Presidency, since 1839, and the difference between the success of operations in the cold and in the hot seasons of the year.

Stations.		Bauleah.		Kishna-gur.		Midna-pore.		Moor-shedabad.		Patna.		Allahabad.		Cawnpore.		Mynpooree.		Futteghur.		Agra.		Allyghur.		Meerut.		Delhi.		Bareilly.		Simla.		Benares.	
No. of Vaccinators at each.		1		1		1		6		5		2		3 & 4		1		1		1		1		1		3		5		4 & 5		5	
		Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.	Total	No. Vaccinated.
January, ...	172	95	47	40	62	60	441	410	154	91	40	9	11	7	0	0	23	8	14	0	29	25	0	0	23	10	175	53	471	351	136	106	
March, ...	82	76	62	46	52	49	476	452	219	184	44	21	17	12	0	0	38	7	13	2	43	37	21	17	25	11	170	52	82	59	128	71	
May, ...	70	55	22	18	49	45	457	439	575	409	22	0	13	7	0	0	34	14	0	0	0	0	18	18	5	0	174	61	342	152	122	0	
July, ...	40	35	21	14	31	0	147	111	506	440	7	0	11	6	0	0	33	12	0	0	0	0	8	0	5	0	213	57	64	30	9	0	
October, ...	80	72	18	13	26	23	165	129	574	429	13	0	12	7	0	0	125	1	0	0	0	0	0	0	8	0	249	82	438	370	61	0	
January, ...	142	117	49	44	484	467	317	266	393	280	35	5	36	17	56	33	15	2	36	1	101	98	5	5	63	52	122	39	301	161	165	139	
March, ...	130	110	128	119	930	901	404	345	593	372	41	11	51	24	88	67	54	29	48	21	95	88	54	44	238	199	400	185	335	235	266	222	
May, ...	80	55	32	24	695	673	342	313	495	397	13	0	50	22	87	61	1	0	0	0	0	0	14	14	49	25	69	28	782	453	116	84	
July, ...	50	30	33	25	530	505	253	198	498	395	12	0	45	24	68	37	0	0	5	0	0	0	11	11	0	0	49	10	701	515	0	0	
October, ...	90	80	28	22	129	124	315	278	378	288	13	0	41	22	85	53	0	0	0	0	0	0	7	7	0	0	155	69	116	0	7	0	
January, ...	125	111	102	98	461	447	0	0	537	468	25	23	32	18	40	28	16	12	29	0	82	75	26	9	242	177	152	89	667	537	308	251	
March, ...	95	85	235	221	407	400	372	348	549	502	14	14	32	15	15	9	42	13	49	12	112	93	29	10	89	54	156	74	494	369	452	425	
May, ...	43	33	61	58	343	321	387	346	561	502	9	0	52	19	28	0	0	0	0	0	0	0	28	9	0	0	126	52	647	506	92	80	
July, ...	35	30	34	31	265	236	303	327	563	488	2	0	40	18	29	0	0	0	0	0	0	0	15	3	0	0	48	14	139	103	0	0	
October, ...	40	40	13	10	none*	none*	357	318	384	93	5	5	37	17	0	0	0	0	0	0	0	0	23	7	28	0	21	0	531	433	11	0	
January, ...	96	84	0	0	64	37	366	326	502	421	22	8	68	41	14	9	0	0	121	89	149	138	26	15	103	80	117	49	399	340	244	215	
March, ...	75	75	275	265	72	25	327	317	513	487	23	15	84	43	18	11	0	0	44	18	217	182	23	12	79	59	102	51	456	360	443	395	
May, ...	42	42	60	49	268	248	306	295	508	486	12	0	66	35	0	0	0	0	0	0	0	0	10	3	10	0	84	30	821	601	341	166	
July, ...	39	33	24	17	202	182	297	287	489	419	6	0	55	30	39	23	0	0	0	0	0	0	7	0	0	0	46	16	327	251	0	0	
October, ...	65	62	17	10	163	152	302	288	469	399	5	0	52	29	26	13	0	0	0	0	0	0	18	7	13	0	21	0	739	550	10	0	
January, ...	241	203	16	8	182	171	330	317	526	489	34	6	64	36	22	12	0	0	97	64	97	83	0	0	219	180	89	44	497	377	251	229	
March, ...	217	217	161	139	154	147	353	338	509	378	25	17	82	42	26	16	0	0	70	47	192	160	0	0	230	202	98	51	342	179	295	250	
May, ...	59	57	49	36	116	106	315	299	412	355	18	0	46	27	15	7	0	0	0	0	0	0	0	0	18	10	113	45	624	515	263	156	
July, ...	41	41	15	9	65	58	335	314	454	382	15	3	28	11	22	10	0	0	0	0	0	0	6	0	0	0	42	12	288	195	22	0	
October, ...	27	27	24	15	53	48	305	288	17	0	11	0	38	21	23	15	0	0	0	0	0	0	0	0	0	0	42	12	288	195	22	0	
January, ...	68	55	15	8	70	64	323	304	443	436	32	4	31	18	30	10	0	0	123	99	127	113	26	23	147	131	133	84	738	535	345	290	
March, ...	111	96	143	114	50	40	309	288	615	588	40	20	36	22	35	14	0	0	129	99	202	177	27	17	217	181	158	88	746	538	322	255	
May, ...	52	46	33	20	0	0	355	332	759	719	12	0	25	15	0	0	0	0	25	16	0	0	0	13	4	0	157	84	261	187	144	116	
July, ...	56	49	44	14	53	0	313	295	707	646	11	0	27	15	0	0	0	0	0	0	0	0	5	0	0	0	0	0	137	92	34	7	
October, ...	39	36	57	34	0	0	287	274	707	646	11	0	27	15	0	0	0	0	0	0	0	0	20	16	4	2	18	0	302	180	0	0	
January, ...	111	107	86	56	67	67	330	315	448	436	35	5	30	11	37	0	0	0	110	87	110	104	22	14	305	267	155	57	866	643	168	144	
March, ...	131	114	193	186	55	53	341	325	573	565	36	21	97	47	37	12	50	38	55	38	149	136	20	8	321	283	91	54	1056	828	298	252	
May, ...	97	81	55	41	53	49	320	305	421	376	8	1	26	9	0	0	34	22	0	0	0	0	18	5	0	0	56	18	2111	1763	0	0	
July, ...	81	72	53	38	20	0	323	307	385	340	15	0	15	8	0	0	15	8	0	0	0	0	9	2	0	0	0	655	481	0	0	0	

* Vaccinator absconded.

Vaccination extension Act. ACT FOR EXTENDING THE PRACTICE OF VACCINATION
IN ENGLAND AND IRELAND.

III. and IV. *Victoriae*, 29th July, 1840.

Whereas it is expedient to extend the practice of Vaccination : Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, That from and after the passing of this Act it shall be lawful for the Guardians of every Parish or Union, and for the Overseers of every Parish in which relief to the poor shall not be administered by Guardians, in England and Wales, and they are hereby directed to contract with the Medical Officers of their several Unions or Parishes, respectively, or with any legally qualified Medical Practitioner or Practitioners, for the Vaccination of all persons resident in such Unions or Parishes, respectively : Provided always, that it shall be a condition of every such contract that the amount of the remuneration to be received under the same shall depend on the number of persons, who, not having been previously successfully vaccinated, shall be successfully vaccinated by such Medical Officers or Practitioners, respectively, so contracting.

II. And be it further enacted, that in making such arrangements as may be required for the execution of this Act, such Guardians and Overseers and all other Officers engaged in the administration of the laws for the relief of the poor, shall conform to the regulations which may, from time to time, be issued by the Poor Law Commissioners in that behalf, which regulations the said Commissioners are hereby authorized and required to make and issue.

III. And be it further enacted, that such Medical Officers or Practitioners shall make a Report to such Guardians or Overseers, from time to time, of the number of persons successfully vaccinated by them respectively, and shall make such further Report, with respect to the persons so vaccinated, as such Guardians and Overseers, under the direction of the Poor Law Commissioners, shall require.

IV. And be it enacted, that such Guardians or Overseers shall forthwith, after the conclusion of any such contract as before mentioned, transmit a copy thereof to the Poor Law Commissioners.

V. And be it enacted, that if such Commissioners shall not annul such contract within fourteen days from the receipt thereof, such contract shall thenceforth not be liable to be annulled by such Commissioners.

Vaccination extension Act.

VI. And be it further enacted, that as soon as may be after the passing of this Act the Guardians of every Poor Law Union in Ireland shall (subject to the approbation of the Poor Law Commissioners) divide such Union into Districts of convenient extent, and may alter the same, from time to time, subject to the like approbation, and shall (subject to such approbation as aforesaid) contract with competent Medical Practitioners for the period of one year, and so from year to year as such contract may expire, for the Vaccination of all persons who may come to such Medical Practitioners for that purpose.

VII. And be it further enacted, that all the provisions hereinbefore made with respect to England and Wales, for the making of reports of such Medical Officers or Medical Practitioners shall apply to all such contracts as may be made under this Act by the Guardians of any Poor Law Union in Ireland; and such Guardians, and all other Officers engaged in the administration of relief to the destitute poor, shall conform to the regulations and instructions of the Poor Law Commissioners, in like manner as is hereinbefore directed with respect to Guardians, Overseers and other Officers in England and Wales.

VIII. And be it further enacted, that any person who shall, from and after the passing of this Act, produce or attempt to produce in any person, by Inoculation with variolous matter, or by wilful exposure to variolous matter, or to any matter, article or thing impregnated with variolous matter, or wilfully, by any other means whatsoever, produce the disease of Smallpox in any person in England, Wales, or Ireland, shall be liable to be proceeded against and convicted summarily before any two or more Justices of the Peace in Petty Sessions assembled, and for every such offence shall, upon conviction, be imprisoned in the Common Jail or House of Correction for any term not exceeding one month.

Punishment of persons inoculating or otherwise producing Smallpox.

Guardians of Poor Law Unions in Ireland to divide their Unions into Districts, &c.

Previous provisions with respect to Unions in England and Wales to apply to Ireland.

Vaccination extension Act.

IX. And be it further enacted, that every word in such part of this Act as refers to England and Wales shall be interpreted in like manner as such word is directed to be interpreted in an Act passed in the fourth and fifth year of His late Majesty King William the Fourth, intituled an Act for the amendment and better administration of the laws relating to the poor in England and Wales ; and that every word used in such part of this Act as relates to Ireland shall be interpreted in like manner as such word is directed to be interpreted in an Act passed in the first and second year of the reign of Her present Majesty, intituled an Act for the more effectual relief of the destitute poor in Ireland.

Interpretation of words,
4 and 5 W. 4 c. 76.

1 and 2 Vict, c. 56.

Questions to Hindoo Pundits by Smallpox Committee.

QUESTIONS submitted to the HINDOO PUNDITS of * * * * * by the Smallpox Committee.

Calcutta, 19th March, 1850.

1. Is there in the holy shasters, any distinct commandment enjoining Smallpox Inoculation, as a religious duty, or recommending it as a commendable Act ?
2. Is the omission to be inoculated considered a sin, or a disreputable act ?
3. Is there any penalty in this world for this omission, or punishment in the next, and if so, how may it be atoned for ?
4. What religious observances are enjoined on those who contract Smallpox naturally ?
5. Supposing it to be proved that the Vaccine disease is really a modified form or variety of the Smallpox, should not all the religious ceremonies, observed in cases of Smallpox, be practised during Vaccination by good Hindoos ?

The same Questions in Bengallee.

কলিকাতা ১৯ মার্চ ১৮৫০

Questions to Hindoo Pundits by Smallpox Committee.

হিন্দু পণ্ডিতদিগের প্রতি টীকাদেওন বিশেষ টীকা কমীটির প্রশ্ন।

১ হিন্দুদের ধর্ম শাস্ত্রে টীকাদেওয়া কর্তব্য ধর্ম কর্ম বলিয়া আদিষ্ট আছে কি প্রসংশীয় কর্ম বলিয়া অনুরোধ করাগিয়াছে।

২ টীকা নাদেওয়া পাপ আছে কি নিন্দনীয় কৰ্ম বলিয়া গণ্য হয়।

Questions to Hindoo Pundits by Small-pox Committee.

৩ টীকা নাদেওন রূপ অপরাধের ইহকালে কোন প্রায়শ্চিত্ত ও পরকালে কোন মাস্তি নির্দিষ্ট আছে কি না যদি থাকে তবে কিরূপে ঐ পাপের মোচন হইতে পারে।

৪ যাহাদের ইচ্ছা বসন্ত হয় তাহাদিগকে কিরূপ আচার করিতে শাস্ত্রে আদেশ আছে।

৫ যদি এমত প্রমাণ হয় যে ইংরাজী টীকাতে যে বসন্ত হয় তাহা বসন্তঃ এই বসন্তের প্রকারান্তর তবে বসন্ত হইলে তদু হিন্দুরা যে প্রকার পূজাদী করেন ও শুদ্ধাচারে থাকেন ইংরাজী টীকা দিলে সে প্রকার করা উচিত কি না।

FROM MAHA RAJA SREESH CHUNDER ROY BAHADOOR,
TO M. ROCHFORT, Esq.,

Principal of the Kishnagur College.

Dated 2nd April, 1850.

Maha Raja Sreesh Chunder Roy Bahadur to M. Rochfort, Esq., dated 2nd April, 1850.

MY DEAR SIR,

I have procured the opinion of the chief Hindoo Law Pundits and other learned men of Nuddea, with their signatures attached to them, on the subject mentioned in your favour of the 26th March last, and I have much pleasure in forwarding herewith the paper containing those opinions. You will observe from it that they are unanimous in their sentiment. Only such of the Pundits that are not now at home, and who are not expected to return shortly, remain to give their opinion. But as the sentiment of the most learned individuals in the Hindoo Law has been obtained, I think the object, which the Council has in view, will be well served by the above paper.

Believe me your's, &c.,

(Signed) MAHA RAJA SREESH CHUNDER
ROY BAHADOOR.

KISHNAGUR, }
2nd April, 1850. }

*Replies of the Chief
Hindoo Law Pundits,
&c. of Nuddea.*

REPLIES of the CHIEF HINDOO LAW PUNDITS and other learned
men of NUDDEA.

প্রথম উত্তর।

ঐচ্ছিক বসন্তের বীজ লইয়া টীকা দেওন এতদেশীয়
প্রাথমিক ব্যবহারত আবশ্যক হইতেছে কিন্তু টীকা দেওয়ায়
পুণ্য হয় এমত শাস্ত্রে ব্যাখ্যাত নাই।

দ্বিতীয় উত্তর।

বসন্ত হইলে ব্যবহারত তৈলাদি ত্যাগ এবং আয়ুর্বেদ-
দোক্ত চিকীৎসা ও ধর্ম শাস্ত্রতঃ শীতলা পূজাদিক কর্তব্য হয়।

তৃতীয় উত্তর।

টীকা না হইলে পাপ হইতে পারে না এবং লোক নিন্দা
হইতেও পারে না।

চতুর্থ উত্তর।

দণ্ডবিধায়ক মন্বাদি শাস্ত্রে টীকা না দেওন জন্য দণ্ড বিধান
নাহি এবং প্রায়শ্চিত্ত নাহি।

পঞ্চম উত্তর।

গো বসন্ত বীজ দ্বারা টীকা হইলেও তন্নিমিত্ত দৈব কর্ম
করণে বাধা নাহি।

শ্রীহরিদাস শর্মণাম

শ্রীরামনাথ শর্মণাম

শ্রীরামধন শর্মণাম

শ্রীপ্রানকৃষ্ণ শর্মণাম

শ্রীমহেশচন্দ্র শর্মণাম

শ্রীরামধন শর্মণাম

শ্রীলক্ষীকান্ত শর্মণাম

TRANSLATION OF THE REPLIES of the CHIEF HINDOO LAW PUNDITS and other learned men of NUDDEA to Questions at page xiv.

Translation of the Replies of the Chief Hindoo Law Pundits, &c. of Nuddca.

THROUGH MR. ROCHFORD.

1. It is the custom of this country to inoculate with the virus or matter obtained from the Smallpox itself, but that the practice is meritorious is not mentioned in the shasters.

2. On the occurrence of Smallpox the patient is forbidden to touch only substances, &c., and put under Medical treatment, and the dhurmo shasters advise the worship of Situla.

3. Neither any sin nor blame is attached to the neglect of Inoculation.

4. The laws of Munu do not enjoin any punishment to the neglect of Inoculation, nor is any act of purification necessary for this neglect.

5. The performance of Cow-pox Inoculation is not attended with any religious hinderance to the performance of religious duties in the person so performing.

(Signed)	LUCKHI KANTH SURMA.
”	HURRIDASS SURMA.
”	RAMNATH SURMA.
”	POOROOSATYNA SURMA.
”	PRANKISTO SURMA.
”	MOHES CHUNDRA SURMA.
”	RAM DHONE SURMA.

FROM DR. F. J. MOUAT,

Secretary, Council of Education,

TO D. STEWART, Esq., M. D.,

Secretary, Smallpox Committee.

Dated 19th April, 1850.

Dr. Mouat to D. Stewart, Esq., M. D., dated 19th April, 1850.

SIR,

I have the honor to forward the accompanying replies of the Pundits of the Sanscrit College to the questions submitted by the Smallpox Committee, and to request that you will be so good as to send, at your convenience hereafter, copies of these papers for record in this office, they being sent in original to you.

I have the honor to be, &c.,

FORT WILLIAM, }
19th April, 1850. }

(Signed) F. J. MOUAT,
Secy. Council of Education.

*Replies through Dr.
Mouat.*

REPLIES of the PUNDITS of the SANSKRIT COLLEGE,

THROUGH DR. MOUAT.

1. In Munu and other Sunghitas, Purana, Itihas and other authorities, there is no injunction for Smallpox Inoculation, and therefore how can such a custom, inconsistent with the letter of the law (religion) be numbered among the good, even supposing it to be advisable ?

2. Inoculation not being enjoined by the shasters, the omission of it is not a misfortune (sinful), nor its abandonment reproachable. Transgression of the precepts of the shasters is reproachable.

3. Inoculation not being a precept of the shasters, its non-observance (omission) does not impose punishment either in this world or the next. The transgression of the precepts of the shasters imposes punishment, but this (the omission of Inoculation) not being so, and consequently not being sinful, there need be no expiation or atonement.

4. For the alleviation of the diseases of persons attacked with natural Smallpox, repetition of the name of the deity, worship of Brahmins, Cows, Sumbhoo and Gouri, especially of the goddess Situla, (the cause or mainspring of that disease) hearing of hymns in her praise according to Skando Purana, placing the patient in a clean room, and not allowing impure (unclean) persons to touch him, or to go into the room, are enjoined. The patient, and his relations in the house, should avoid fish and other reproachable food, and allow their hair to grow. Such observances are not necessary in cases of measles, &c., but to appease the effects of those diseases common propitiary rites, such as worship of Huri, Hur, &c., are proper.

5. In cases of modified Smallpox arising from Vaccination, the worship of Situla, &c., may be performed with all the usual forms, there being no reason for its abandonment, and Situla being the guardian deity of Smallpox disease, as is disclosed in the Skando Purana, such religious observances are necessary.

Here follow the texts prescribing the worship, &c.

(Signed) BHARATCHANDRA CEROMONI,

*And other Professors of the
Government Sanscrit College, Calcutta.*

REPLIES to QUESTIONS vide page xiv, by the PUNDITS of the
SANSKRIT COLLEGE.

Replies through Dr.
Mouat.

THROUGH DR. MOUAT.

প্রথম প্রশ্নোত্তরঃ ।

মন্বাদিসংহিতা পুরাণেতিহাসাদিষু প্রামাণিক গ্রন্থেষু টীকা
প্রদান প্রতিপাদকং বচনং নাস্তি অতঃ কথমসৌ যুক্তিমূলোহ-
শাস্ত্রীয় ব্যবহারঃ প্রশস্তয়া পরিগণ্যত ইতি ।

ভাষা ।

মন্বাদি প্রামাণিক ধর্ম শাস্ত্রে কুত্রাপি টীকা দিবার বিধান
নাই অতএব অশাস্ত্রীয় তাদৃশং ব্যবহার যুক্তি মূলক হইলেও
প্রশস্ত রূপে পরিগণিত হইতে পারে না ।

দ্বিতীয় প্রশ্নোত্তরঃ ।

টীকা প্রদানস্য শাস্ত্রীয়ত্বাভাবাৎ তদাচরণে দুরদৃষ্টং
নস্যাৎ নবা তৎ পরিত্যাগো নিন্দনীয়ঃ শাস্ত্রীয়োল্লঙ্ঘন এব নিন্দা
বাদাদিতি ।

ভাষা ।

টীকা শাস্ত্রীয় নহে অতএব তাহা নাদিলে দুরদৃষ্ট হয় না
সুতরাং তাহার পরিত্যাগ নিন্দিত নহে শাস্ত্রীয়ের পরিত্যাগে
নিন্দা করিয়াছেন ।

তৃতীয় প্রশ্নোত্তরঃ ।

টীকা দানস্য শাস্ত্রোক্তত্বাভাবাৎ তদাচরণেনেহামুক্তচ
মনুষ্যো দণ্ডভাগী ভবতি শাস্ত্রীয়োল্লঙ্ঘনে দণ্ডস্যবিধানাদস্য তথা-
ত্বাভাবাৎ প্রত্যবায়োহভবতঃ প্রায়শ্চিত্তমপি নাস্তিতি ।

ভাষা ।

দেশীয় টীকা শাস্ত্রোক্ত নহে এবং তাহার উল্লঙ্ঘনে মনুষ্য
ইহলোকে বা পরলোকে দণ্ড ও প্রায়শ্চিত্ত হইতে পারে না ।

চতুর্থ প্রশ্নোত্তরঃ ।

মসুরিকা রোগোক্তান্তস্য তদ্রোগোপশমনার্থং জপাদিকং
বিপ্র গো মধু গৌরীনা মর্চনং বিশেষতঃ স্তদ্রোগস্য শীতলাভিধান
নিমিত্তীভূত্যা ভগবত্যা শীতলায়াঃ সমর্চনং তৎ স্তব শ্রবণং

Replies through Dr.
Mouat.

স্কন্দপুরাণে তদ্রোগিণঃ পবিত্র গেহে স্থাপনস্য শুচিকর্তৃকান্ধর্শ-
ন্যামুচে স্তদন্তিকাগমনস্যচ বিধানাং মৎস্যাদি নিন্দিতাহার
বর্জনং কেশাদি ধারনঞ্চাত্রেয়মেব । রোগান্তিকাদিষ্টান্য-
রোগেষু এতাদৃশনিয়মো নাস্তি সান্ত্যর্থং সামান্য স্বস্ত্যয়নন্তু হরি
হরাদ্যর্পণং কৰ্ত্তব্যমেবেতি ।

ভাষা ।

ইচ্ছাবসন্ত হইলে তাহার সান্তি নিমিত্ত জপ হোম
প্রভৃতি দৈব কৰ্ম্ম গো ব্রাহ্মণ হর গৌরী পূজা বিশেষতঃ উক্ত
রোগের অধিষ্ঠীতা দেবতা শীতলা দেবীর পূজা এবং তাহার
স্তব শ্রবণ করিবে । রোগিকে পবিত্র গেহে রাখিবে ও অশুচি
ব্যক্তি তাহাকে স্পর্শ এবং তাহার নিকট গমন করিবেনা
রোগি ও তাহার স্বকুটুম্ব গৃহস্থেরা মৎস্যাদি নিন্দিতাহার
বর্জন ও কেশাদি ধারন করিবে । হোম প্রভৃতি অন্য রোগে
এরূপ নিয়ম নাই কিন্তু সামান্য স্বস্ত্যয়ন হরিহরাদ্যর্চন অবশ্য
করিবে ।

পঞ্চম প্রশ্নমোত্তরং ।

ইংলণ্ডীয় টীকা দ্বারেন জাতায়াং কোমলাকৃতিকায়াং
মসুরিকায়াং শীতলা পূজাদিকং সৰ্ব্বং বিধান মনুষ্ঠেয়মেব
তত্ত্যাগে হেতুভাবাৎ তদ্রোগে শীতলায়া অধিষ্ঠীত দেবতাত্বস্য
স্কন্দপুরাণেহতিহিততয়া তদ্যবহারস্যাবশ্যকত্বাদিতি ।

ভাষা ।

ইংলণ্ডীয় টীকা দ্বারা বসন্ত হইলেও তাহাতে ইচ্ছা বস-
ন্তের ন্যায় শীতলা পূজাদি সমস্ত অনুষ্ঠান অবশ্য করিবে ।

অত্র প্রমাণং ।

স্থাপয়োক্ত স্থলে পূতে রসো রহসি শীতলো । ন শুচিঃ
সংস্পৃশ্যেত্তন্তু নচ তস্যান্তিকং ব্রুজদিত্তি তথা জপ হোমোপচা-
রস্য দান পুণ্য জনার্দ্ধনেঃ । বিপ্র গো শম্বু গৌরিনাং পূজনৈ স্তাং
সমং নয়েৎ স্তোত্রঞ্চ শীতলা দেব্যাঃ পঠেৎ শীতলিনোহন্তিকে
ইতি । স্কন্দপুরাণং এবং শীতলা দেব্যাঃ পূজাদিকং যথা শক্তি

বিস্ফোটকাদ্যুপসমন কার্যেঃ স্তবন মপি কৰ্ত্তব্যমিতি মহামোহ
পাধ্যায় স্মার্ত ভট্টাচার্য্য সন্দৰ্ভঃ । নমামি শীতলাং দেবীং
রাশভস্থাং দিগম্বরীমিত্যুপক্রম্য দাতব্যং হি সদা তস্যা ভক্তি
শুদ্ধান্নিতোনর ইতি কৃত্যতত্ত্বধৃত স্কন্দপুরাণীয়ঞ্চ ।

সম্মতিকাপ্ত্যত্র সংস্কৃত পাঠশালাসু সম্মতি শাস্ত্রাধ্যাপক ।

শ্রীভরতচন্দ্র শিরোমণেঃ ।

পাঠশালাসু ন্যায়শাস্ত্রাধ্যাপকঃ ।

শ্রীজয়নারায়ণ তর্কপঞ্চাননস্যোদং সম্মতং ।

জ্যোতিষ শাস্ত্রাধ্যাপকস্য ।

শ্রীপ্রিয়নাথ সিদ্ধান্ত পঞ্চাননস্য ।

১ ব্যাকরণ শ্রেণীস্থ্যাধ্যাপকস্য ।

শ্রীতারানাথ তর্কবাচস্পতেষ্মতমদিসু ।

২ ব্যাকরণ শ্রেণীস্থ্যাধ্যাপকস্য ।

শ্রীদ্বারকানাথ বিদ্যাভূষণ মতমেতৎ ।

৩ ব্যাকরণ শ্রেণীস্থ্যাধ্যাপকস্য ।

শ্রীরামগোবিন্দ তর্করত্নস্যোদং সম্মতং ।

৪ ব্যাকরণ শ্রেণ্যাধ্যাপক ।

শ্রীপ্রাণকৃষ্ণ বিদ্যাশাগর সম্মতিমিদং ।

শ্রীমদনমোহন সর্ম্মণং সম্মতং ।

৫ ব্যাকরণ শ্রেণ্যাধ্যাপকস্য ।

শ্রীকাশীনাথ তর্কপঞ্চাননস্য সম্মতিমিদং ।

*B. J. Colvin, Esq.
to Dr. D. Stewart,
dated 17th May, 1850.*

No. 685.

FROM B. J. COLVIN, Esq.,

Register, Sudder Dewany Adawlut,

TO DR. D. STEWART,

Secretary, Smallpox Committee, Calcutta.

Dated 17th May, 1850.

SIR,

S. D. Adt. I am directed by the Court to forward
Present to you the accompanying translation of a
W. B. Jackson, Esq., to you the accompanying translation of a
Judge. Bewustah delivered by the Pundit of this
Court, in reply to the questions proposed by you.

I have the honor to be, &c.

(Sd.) B. J. COLVIN,
Register.

FORT WILLIAM, }
17th May, 1850. }

Replies of the Pundit of the Sudder Dewany Adawlut.

REPLIES to QUESTIONS vide page xiv, by the PUNDIT of the
SUDDER DEWANY ADAWLUT.

1. Although in the dhurmo shasters there is no distinct commandment enjoining Smallpox Inoculation to be an obligatory religious duty, yet it has been regarded as a commendable act ; and the wise, the learned, and many other people consider Inoculation as necessary and proper to be observed.

2. I have not as yet found in the holy shasters that the omission to be inoculated is considered a sin or a cause of disrepute.

3. I have not as yet found in the holy shasters that there is any penalty in this world, or any punishment in the next, for the omission of being inoculated.

4. It is necessary for those who are naturally attacked with Smallpox to live in secluded, pure, cool and pleasant rooms, free from impure things, such as remnants of food, &c., and to keep themselves clean. It

* *Melia Azaddiracta.* is also necessary for them to hang leaves of neem-tree* around the rooms ; to worship

Situla Dabee (the goddess of Smallpox) according to their ability, with devotion, faith and purity ; to repeat her name frequently ; to make *Homa* (burnt offering), to present offerings, to give alms, to perform *Sustian*, or propitiatory rites for the averting of evil ; to adore

Brahmins, to worship Cows, to worship Sumbhoo and Gowri, *i. e.* the god Shiva and the goddess Doorga, and to cause faithful Brahmins to sing hymns to Situla—all these are necessary to be done (by the patients) for the alleviation of the pain of Smallpox.

Replies of the Pundit of the Sudder Dewany Adawlut.

5. The Vaccine disease is in reality a modification or variety of the Smallpox. Such being the case, virtuous Hindoos, when vaccinated, should with veneration, faith and purity, observe the same religious ceremonies mentioned in my answer to the fourth question, as they do when attacked with Smallpox. This custom is still prevalent in many respectable and learned families. This *Bewustha* is given according to Kritto Tutto, Skando, Pooran, Bhab, Prokash, Shubdo Kulpo Droom and other books.

AUTHORITIES.

1. The Book Kritto Tutto states that for the cure of Smallpox it is necessary to worship the goddess Situla and sing hymns to her.

2. The Books Bhab Prokash, &c., say that a patient attacked with Smallpox should be kept in a pure, pleasant, secluded and cool place. He must not be touched by an impure person, nor shall an impure person go close to him.

3. It is also written in the above books that leaves of neem tree should be hung around the room in which the patient, attacked with Smallpox, should live, and that this room should be free from all impurities, such as remnants of food, &c.

4. The above books further say that the Smallpox patient shall propitiate Situla Dabee by repeating her name frequently, by making *Homa* (burnt offering,) by presenting offerings, by giving alms, by performing *Sustian*, by adoring Brahmins, by worshipping Cows, by worshipping Sumbhoo and Gowri, and by causing faithful Brahmins to sing hymns to her; that by thus propitiating the goddess the patient will obtain a cure.

(True Translation,)

(Signed)

B. J. COLVIN,

Register.

Replies of the Pundit of the Sudder Dewany Adawlut.

REPLIES to QUESTIONS vide page xiv, by the HINDOO PUNDIT of the SUDDER DEWANY ADAWLUT.

কলিকাতাখ্য নগর সম্বন্ধ সদর দেওয়ানী পদবোধ্য ধৰ্ম্মাধিকরণ রজিতুরপদাভিষিক্ত ত্রিযুক্ত বিনি জিমিস কালবিন সাহেব ধৰ্ম্মাধিকরণ লিখিতে সবীপদ বোধ্য স্ববাণ গজেন্দ্র ১৮৫০ মিতাদীয়া পরেন সৎজক মাসম্যরেদ ৪ মিত দিবসীয় বিচারপত্র তৎসম্প্রতিপাতানি টীকা কমিটী পদ প্রতিপাদ্য কমিশ্যর পদাভিষিক্ত সাহেব প্রেষিতান্যঙ্গরেজী পদ বোধ্যনিপ্যঙ্গরেজী পদ প্রতিপাদ্যকর নিম্নিত প্রশ্ন বঙ্গদেশীয়াকর নিম্নিত প্রশ্ন প্রতিরূপানি যানিচ তদদীয় তন্মাসীয় রশ ৬ মিত দিনে ময়া প্রাপ্তানিতে ধৰ্ম্মেধে বঙ্গদেশীয়াকর নিম্নিত প্রশ্ন প্রদিকরূপান্যবলোক্য যাদৃশ বোধ জাত স্তদনুসারেণোত্তরং লিখ্যতে ।

প্রথম প্রশ্নসোত্তরং ।

যদ্যপি কর্তব্য ধৰ্ম্মকৰ্ম্মত্বেন টীকা দান পদ প্রতিপাদ্যস্য বিশেষতঃ আজ্ঞা হিন্দুজাতীয় ধৰ্ম্মানুষ্ঠাতৃ প্রচলিত ধৰ্ম্ম শাস্ত্রে অদ্যাপি ন প্রাপ্তা পরন্তু প্রশস্ত কৰ্ম্মত্বেন বিজ্ঞতমলৌকিকবিজ্ঞ-রপ্যাবশ্যকতমকৰ্ম্মত্বেন টীকা দান পদ প্রতিপাদ্য মনুষীয়ত ইতি ।

দ্বিতীয় প্রশ্নসোত্তরং ।

টীকা পদ প্রতিপাদ্যস্যানাচরণস্য পাপত্বেন নিন্দ্যকৰ্ম্ম-ত্বেন বাশননা ধৰ্ম্ম শাস্ত্রে অদ্যাপি ন দৃষ্টেতি ।

তৃতীয় প্রশ্নসোত্তরং ।

টীকা পদ প্রতিপাদ্যস্যানাচরণে সতি ইহলোকে কিঞ্চিৎ প্রায়শ্চিত্তং পরলোকে বা কিঞ্চিদুঃখং ভবতীতি ধৰ্ম্ম শাস্ত্রে অদ্যাপি ন দৃষ্টমিতি ।

চতুর্থ প্রশ্নসোত্তরং ।

যেষামিচ্ছা বসন্তো ভবতি তেষামিচ্ছা বসন্তোপদুব সান্তে উচ্ছিষ্টাদি রহিতে জনতা রহিত শুচি শীতল রম্য স্থানে শুচিত যাবস্থানন্তদগ্ৰহাভ্যন্তরে পরিতোনিম্বপত্রাণামৃন্দ্যং স্বশক্ত্যানু-সারেণ বসন্তাধিষ্ঠাত্র্যাঃ শীতলা দেবতয়া ভক্ত্যা শ্রদ্ধায়া শুদ্ধা-

চারণচ পূজনং জপ হোমা বৃপহার দানং দ্রব্যাদি দানং
স্বস্তায়নং বিপু গো শম্বু গৌরীনাং পূজনং শীতলা দেবতা
সম্বোধো শ্রদ্ধাযুক্তেন ব্রাহ্মণেন শীতলা স্তোত্রং পাঠনীয়ৈশ্চ তৎ
সৰ্ব্বং কৰ্ত্তুমাৱশ্যকম্ভবতীতি ।

Replies of the Pundit of the Sudder Dewany Adawlut.

পঞ্চম প্রশ্নোত্তরং ।

অঙ্গরেজী টীকা পদ প্রতিপাদ্যতো যো বসন্তো জায়তে
সচ বসন্তো বসন্তো বসন্তস্যেতস্যেব প্রভেদো ভবতি তদা বসন্তে
জাতে নতি ধার্মিক হিন্দু জাতীয়ৈভক্ত্যা শ্রদ্ধায়া শুদ্ধাচারেণচ
যেন প্রকারেণ পূজাদিঃ ক্রিয়তে অঙ্গরেজী টীকা পদ প্রতি-
পাদ্যস্য দানেপি ভক্ত্যা শ্রদ্ধায়া শুদ্ধাচারেণচ তেনৈব প্রকারেণ
ধার্মিক হিন্দুজাতীয়ৈশ্চতুর্থ প্রশ্নোত্তর লিখিত পূজাদি কৰ্ম্ম
কৰ্ত্তুমুচিতম্ভবতি বরং কেষাংচিৎ কেষাংচিদ্ধার্মিক হিন্দু-
জাতীয় বিজ্ঞতমানাং বংশে ইদং প্রচলিতমস্তীতি কৃত্যতত্ত্ব
স্কন্দপুরাণ ভাবপ্রকাশ শব্দকল্পদ্রুম পুভৃতি গ্রন্থানুসারিণী
ব্যবস্থেতি ।

অত্র প্রমাণং ।

শীতলা দেব্যাঃ পূজাদিকং যথা শক্তি বিস্ফোটকাদ্যুপশ-
মন কাম স্তবনমেব কৰ্ত্তব্যমিতি কৃত্যতত্ত্ব গ্রন্থ লিখিতং । ১ ।

স্থাপয়োক্ত স্থলে পুতে রম্যে রহসি শীতলে না শুচিঃ
সংস্পৃশ্যেত্তত্ত্ব নচ তস্যান্তিকং ব্রজেদিতি ভাবপ্রকাশ পুভৃতি গ্রন্থ
লিখিতং । ২ ।

বধ্নীয়ান্নিষ্পাত্রাণি পারিতোভবনান্তরে - কদাচিদাপলো
কার্য্য মুচ্ছিস্তস্য পুবেসন মিতি তত্ত্বদগ্রন্থ লিখিতং । ৩ ।

জপ হোমোপহারৈশ্চ দানং স্বস্তায়নার্চনৈঃ বিপু গো
শম্বু গৌরীনাং পূজনৈ স্তাং সমন্বয়েৎ স্তোত্রঞ্চ শীতলা দেব্যাঃ
পঠেৎ শীতলিনোত্তিকে ব্রাহ্মণঃ শ্রদ্ধয়া যুক্ত স্তেন সাম্যতি
শীতলা ইতি তত্ত্বদগ্রন্থ লিখিতংচেতি । ৪ ।

Replies of the Pundit of the Sudder Dewany Adawlut.

ইশবী পদবোধ্য খবান গজেন্দু ১৮৫০ মিতাদীয় মে
সংজ্ঞক মাসন্য দিনে সম্ম্পিতো পরিলিখিত পত্র জাত পার-
নীক লিপি নির্মীত ব্যবস্থা পুতি রপ্যাভ্যাং সংহিতেয়ং
ব্যবস্থা দত্তেতি।

*From the Superintendent General of Vaccination to * * * * Civil Surgeon, and Vaccine Superintendent at * * * **

CIRCULAR LETTER addressed to * * * * Civil Surgeon, and Vaccine Superintendent at * * * *

DEAR SIR,

His Honor the Deputy Governor of Bengal having been pleased to appoint a Special Committee as named in the margin, to enquire into the origin, mode of diffusion, and extent of the recent ravages of epidemic Smallpox among the native population; and especially whether these have not been, in a great measure, owing to the continued practice of Smallpox Inoculation, I am desired by the Committee to request of you to favour them, as speedily as possible, with any information which you may possess on the above subject, and also with your opinion as to the expediency of putting down this baneful practice by legislative enactment. On the latter point, it would be very desirable that you should obtain the opinions of such of the leading members of the Hindoo community at your station as may be willing to give any.

Dr. Lamb, *Physician General.*
Dr. Forsyth, *Secretary, Medical Board.*
Dr. D. Stewart, *Superintendent of Vaccine.*
Baboo Russomoy Dutt, *Commissioner of Court of Requests.*
Baboo Ramgopaul Ghose, *Merchant.*
Pundit Madoosoodun Goopto, *Medical College Teacher.*
Mr. W. T. Law, *Superintendent of Police.*

Smallpox among the native population; and especially whether these have not been, in a great measure, owing to the continued practice of Smallpox Inoculation, I am desired by the Committee to request of you to favour them, as speedily as possible, with any information which you may possess on the above subject, and also with your opinion as to the expediency of putting down this baneful practice by legislative enactment. On the latter point, it would be very desirable that you should obtain the opinions of such of the leading members of the Hindoo community at your station as may be willing to give any.

2. The Committee are desirous to trace, if possible, the rise, course and progress of the epidemic, which appears to have spread very widely over all the Villages and Province of Bengal; you are therefore earnestly requested to endeavour to obtain such Statistical information on this head as may be available to you from any Ghât or burial registers, or Police records of mortality, which may have been kept; specifying, in each month from the time of its outbreak last year, the number of deaths which have occurred from Smallpox among Christians, Hindoos and Mahomedans, resident in the district, town, or villages within your superintendence. If no such records exist, you may be able to ascertain whether it be not possible to obtain trustworthy daily

or weekly reports of this sort, in future, through the agency of the Police authorities, as is done in Calcutta.

3. The Committee hope that, you will have no great difficulty in obtaining specific information as to the actual *number* of *Ticcadars* at work in your district of superintendence; and in a general way to ascertain their proceedings during the past 12 or 18 months; and whether in any or many cases fatal results have followed from their operations.

4. The Committee consider that their enquiries would be incomplete, did they not endeavour to ascertain what effect, on public health and public opinion, has been produced among the people by the establishment of Vaccination. You will therefore further much oblige them by furnishing a Tabular view of its results in your town or district, for each month, during the past 5 years, and the number of Vaccinators employed.

5. Any other information regarding the origin, diffusion and peculiarities of the epidemic which you can supply will be most acceptable.

I have the honor to be,

Sir,

Your most obedient Servant,

(Signed) _____,

Supdt. Genl. of Vaccination,

Offg. Secy. to the Committee.

CALCUTTA, }
18th March, 1850. }

*From the Superintendent General of Vaccination to * * * * Civil Surgeon, and Vaccine Superintendent at * * * **

CIRCULAR. QUESTIONS to BABOO * * * * at * * * *

Questions on Small-

1. Do you know any instances of the Smallpox being introduced ^{pox.} into a family by a *Ticcadar*, and the disease thereafter propagating itself, and producing death or deaths in the family?

2. Name any number of respectable Hindoo families, from your own knowledge, in * * * * who now adopt Vaccination, and discourage Inoculation, by precept and example?

3. Name any respectable Hindoo families who still prefer the old practice of Inoculating, and who discourage Vaccination?

4. What do you think are the chief causes which tend to set up Smallpox among the Hindoos of * * * * ; and to maintain and promulgate it in certain localities?

(Signed) _____,

Offg. Secy. to the Committee.

CALCUTTA, }
19th March, 1850. }

*Statement of the
Names, Residence, &c.
of Native Inoculators.*

STATEMENT shewing the Names, Residence and Number of NATIVE
INOCULATORS in Calcutta.

Stations and Sections.	Names.	Residence.	Remarks.
North Station,	Nilmony Tacoor,	Rambagaun.	
Ditto,	Bhugwan Tacoor,	Ditto.	
Ditto,	Ramruttun Ghosal,	Ditto.	
Ditto,	Sreenath Ghosal,	Ditto,	
Ditto,	Moodosudun Batterjee, ...	Simlah.	
Ditto,	Nobokisoor Odeecaree,	Ditto.	
Ditto,	Comole Kamar,	Kassareeparra.	
Section A, ...	Nyan Chundro Paul,	Gooch Bazar.	
Ditto,	Rauj Chundro,	Ditto.	
Ditto,	Lookenauth,	Raja Ghaut.	
Ditto,	Maudhub Chundro,	Rothe Tollah.	
Ditto,	Ramanundo,	Aheree Tollah.	
Section B, ...	Modoo Tacoor,	Soba Bazar.	
Section C, ...	Russa Chatterjee,	Durzee Parra.	
Ditto,	Obhoy Churn Ghosaul, ...	Munjit Parra.	
Ditto,	Sittarano Samah,	Ditto.	
Section D, ...	Roop Churn Mookerjee, ...	Chini Bagaun.	
Ditto,	Chundro Naraen,	Mirzapore.	
Ditto,	Endernarain,	Ditto.	
Section E, ...	Essur Chundro Chukur- butty,	Malla Parra.	
Ditto,	Sittaram,	Ditto.	
Ditto,	Narain Mullick,	Mullick's Bazar.	
Section G, ...	Pauch Couree,	Sankee Banga.	
Ditto,	Raj Kisto,	Ditto.	
Ditto,	Modosudun,	Ditto.	
Ditto,	Umnando,	Ditto.	
Ditto,	Ram Chukurbutty,	Ditto.	
Ditto,	Byroo,	Ditto.	
Ditto,	Maddoo,	Ditto.	
Ditto,	Premchund,	Ditto.	
Ditto,	Samma Chaund,	Ditto.	
Ditto,	Kallee Chund,	Ditto.	
Ditto,	Khoodeeram,	Ditto.	
Ditto,	Lall Chund,	Tuntunneeah.	
Ditto,	Pyrag,	Kala Bagaun.	
Ditto,	Ramneeddy Dutto,	Jewall Tollah.	
Ditto,	Goor Chund,	Ditto.	
Ditto,	Bugnoo,	Medical Col- lege Street.	
Ditto,	Pultoo,	Ditto.	
Ditto,	Beechoo,	Ditto.	
Ditto,	Lubbeen,	Dhooby Parra.	

Stations and Sections.	Names.	Residence.	Remarks.	<i>Statement of the Names, Residence, &c. of Native Inoculators.</i>
Section G, ...	Churdee Khar,	Molingah.		
Ditto,	Cassee,	Puttuldangah.		
Ditto,	Muddoo,	Ditto.		
Ditto,	Panchoo,	Chitpore Road.		
Ditto,	Goor Churn,	Machooa Bazar.		
Section H, ...	Modoosoodun,	Champa Tollah.		
Ditto,	Coymas Tacoor,	Ditto.		
Ditto,	Ramanundo,	Ditto.		
Ditto,	Cheeneebaus Roy,	Ditto.		
Ditto,	Collee Sane,	Ditto.		
Ditto,	Bachoo Bagdee,	Ditto.		
Ditto,	Kallachund,	Ditto.		
Ditto,	Bustom Churn,	Ditto.		
Ditto,	Hurakisto Doss,	Ditto.		
Ditto,	Deenonath,	Puttuldangah.		
Ditto,	Cheemunto Banerjee,	Ditto.		
Ditto,	Ram Chund Banerjee,	Ditto.		
Ditto,	Petumber Banerjee,	Ditto.		
Ditto,	Nobin Banerjee,	Ditto.		
Ditto,	Denonath Chukerbutty,	Mirzapore.		
Ditto,	Nobin Chunder Banerjee,	Garee Khanna.		
Ditto,	Boy Kunto Mookerjee,	Ditto.		
Ditto,	Chundee Churn Banerjee,	Ditto.		
Ditto,	Bunsee Moochee,	Sustee Tollah.		
Ditto,	Bhoobun Mitter,	Punchanund Tollah.		
Section I, ...	Cheedaum Pundit,	Fool Bagaun.		
Ditto,	Casseenath,	Ditto.		

(Signed) W. T. LAW,
Superintendent of Police.

REPLIES from INOCULATORS—viz.

DENONATH CHUCKERBUTTY, *Parolae, at Calcutta, Mirzapore.*

RAMANUND RAE, *Burdwan, Zillah Bathragore, Chumpatollah.*

MODOOSUDUN RAE, *ditto, ditto, ditto.*

Replies from Inoculators.

All of them say that they have not punctured any this year. The smallest fee taken for puncturing is 2 or 3 rupees, and the largest 16 rupees or 20 rupees, and a shawl. The Brahmins get nothing. The *Ticcadars* are themselves Brahmins. They often inoculate gratuitously. Sometimes when the first Inoculation is not successful, that

Replies from Inoculators.

is, when the pustules do not come out, they inoculate a second time. The season for Inoculation commences in Maug and ends with Choitro. They inoculate even when the disease is prevailing, if it happens to be so in the season for Inoculation. The mortality is greater among the persons inoculated during the prevalence of the disease than among those inoculated when it is not prevalent. The inoculated disease is as infectious as the natural one—cannot say whether the disease contracted from an inoculated person is mild, frequently it is very severe. One of them says that the disease is most prevalent in Sealdah where Moosulmans mostly reside,—cannot assign any reason for the prevalence of the disease in this locality,—the other two say that the disease prevails equally everywhere.

(Signed) N. GORMAN,
Inspr. of Police.

REPLIES *from* INOCULATORS—*viz.*

PETUMBER BANNERJEE, *Zillah Hooghly, at Calcutta, Puttuldangah.*

NOBIN CHUNDER BANNERJEE, *ditto, ditto, Mirzapore.*

Both say that they arrived at Calcutta 25 years ago, and the season for Inoculation commences with Maug and ends with Choitro. They never inoculate during any other part of the year. Both practised or began to inoculate 20 or 25 years ago, and the average number each of them inoculate is 50 or 60 during the season. Petumber Bannerjee says that he inoculated this year about 40 persons, and Nobin Chunder Bannerjee about 11 persons (children of different sexes and of different ages) and all survived,—sometimes from the above number, may die one or two, and that by accident. They could inoculate at any season of the year, but they are afraid it will prove very severe and may cause death.

(Signed) N. GORMAN,
Inspr. of Police.

REPLIES *of* ISSURCHUNDER CHUCKERBUTTY, *Inoculator, Bassa Rambagaun.*

1 to 5. There are now 50 or 60 *Ticcadars* in Calcutta, located in different parts of the town. They are of the castes of Brahmin, Dybogyia, Mauley, Tautee, Koomar and Napit. The Mauleys, Tautees, Koomars and Napits are principally residents of Calcutta. The Brahmins and Dybogyas come from West Burdwan, Beerbhoom, &c. They

generally come to Calcutta in the month of Maugh and remain here about three months. Ten of them remain the whole year upon other avocations. Bissonauth Mauley at Jorasanko, has extensive practice, but he does not inoculate, he merely attends as a physician on persons attacked with natural Smallpox, and when very bad cases arise from Inoculation, Ramchund Mauley inoculates.

Replies from Inoculators.

6 and 7. I have inoculated 60 this year; they are all cured. Bungsey Mitter's two children were not inoculated by me.

8 to 16. Very poor people pay about 2 rupees to the *Ticcadar* for inoculating 2, 3, 4, or 5 children in a group. The middle class people pay from 3, 4 to 10 rupees. The Pooja costs very little. The middle class Khottas generally expend in Pooja 2 or 3 rupees, Bengalees 4 to 5; rich men give more to *Ticcadars* and expend more money for Pooja. The *Gaun* costs to each family 2 or 3 rupees. I have inoculated poor people, too, without remuneration. I have never inoculated a second time, but I have heard second Inoculation is resorted to when the first does not take effect. The Inoculation operates in season. The epidemic generally comes on in season, (part of Maugh, whole Falgoon and part of Chytro), but sometimes out of season too. I generally inoculate during the month of Falgoon, and a few in the month of Chytro. I have inoculated many this year during the prevalence of the epidemic, that is, earlier than Falgoon. In epidemic season, deaths occur by Inoculation. It is possible for servants in the house, where Inoculation takes place, to be infected with more or less severity.

17 & 18. I am not able to speak of the whole town, but within the space of my operations, Smallpox raged this year generally and fatally near Manictollah, among the Mussulman and lower classes of population. The disease is infectious. It takes 17 or 18 days to effect entire cure. The patient remains confined 10, 12, 13 or 14 days. Bad pustules sometimes arise by Inoculation.

(Signed) N. GORMAN,

Inspr. of Police.

REPLIES to QUESTIONS at page xxvii, by PUNDIT MOODUSOODEN GUPTU.

*Replies to Questions
by Pundit Moodusooden Gupta.*

Answer 1st.—Though Inoculation is dangerous to the individuals inoculated, it seldom affects any other person in the same family. The cause is obvious: a *Ticcadar* inoculates the uninoculated children of a family at once, consequently the elder ones who were before inoculated and there-

*Replies to Questions
by Pundit Moodusoo-
den Gupta.*

by were attacked by Smallpox are not again subject to the disease ; but the contagion of Smallpox, caused by Inoculation, is very injurious to the neighbours who are neither inoculated nor vaccinated.

I have heard of several instances of deaths by Inoculation, but the following is a list of individuals who died of Smallpox by Inoculation as far as I recollect.

<i>Names.</i>	<i>Residence.</i>	<i>Deaths.</i>
Shib Chunder Mullick, ...	Amratollah,...	1 daughter, aged 10 years.
Hurris Chunder Chatterjee, Simlah,		1 daughter, aged 5 years.
Coonjoo Beharry Mitter,...	Simlah,	2 children.
Ram Coomar Bose,.....	Simlah,	1 daughter and a son.
Bhecun Pal,	Buddepatty,...	1 son.

Answer 2nd.—Most of the respectable and educated Hindu gentlemen have already adopted Vaccination, and have got rid of the troublesome practice of Inoculation by vaccinating their own children. The following is a list of native gentlemen of this town who have adopted Vaccination, as I know from my own knowledge.

<i>Names.</i>	<i>Residence.</i>
Baboo Russomoy Dutt,	Simlah.
„ Sree Kissen Sing,	Jorasanko.
„ Nundo Lal Sing,	Ditto.
„ Hurris Chunder Sing,	Ditto.
„ Peary Mohun Bose,	Ditto.
„ Hurro Chunder Ghose,	Ditto.
„ Russic Laul Sen,	Simlah.
„ Hurro Mohun Chatterjee,	Ditto.
„ Hurry Mohun Sen,	Colootollah.
„ Radanath Dutt,	Simlah.
„ Gobind Chunder Sen,	Colootollah.
„ Madusuden Sen,	Ditto.
„ Anundo Persad Mozoomdar,	Ditto.
„ Nilmoni Muttylal,	Bow Bazar.
„ Lokenath Roy,	Colootollah.
„ Modon Mohun Turkolunkar,	Ditto.
„ Nilmoni Goopt,	Simlah.
„ Anundo Chunder Mitter,	Jorasanko.
„ Prosonocoomar Mitter,	Shampooker.
„ Tarachand Dutto,	Colootollah.
„ Gobind Chunder Borat,	Ditto.

	<i>Names.</i>	<i>Residence.</i>	<i>Replies to Questions by Pundit Moodusoo- den Gupta.</i>
Baboo	Prosonocomar Tagore,	Putturea Ghatta.	
,,	Debendronath Tagore,	Jorasanko.	
,,	Modon Mohun Chatterjee,	Ditto.	
,,	Gopal Laul Tagore,	Putturea Ghatta.	
,,	Kissory Mohun Mookerjee,	Sham Bazar.	
,,	Hurris Chunder Chatterjee,	Simlah.	
,,	Shib Chunder Kurmoker,	Ghamapoker.	
,,	Bissessur Sen,	Herakatta Gully.	
,,	Boloram Bose,	Simlah.	
,,	Lukenarayan Mitter,	Jorasanko.	
,,	Goury Sunkur Mitter,	Ditto.	
,,	Gobind Chunder Bose,	Simlah.	
,,	Issur Chunder Shaha,	Chore Bagaun.	
,,	Joygopal Bose,	Puttuldangah.	
,,	Bany Madub Roodro,	Ditto.	
,,	Satcowry Dutt,	Colootollah.	
,,	Pundra Nundro Mitter,	Simlah.	
,,	Ramdhone Seeromony,	Ditto.	
,,	Ramgopal Ghose,	Ditto.	
,,	Hurry Narayan Dossy,	Ditto.	

Answer 3rd.—The gentlemen whose names I inserted in the above list are encouragers of Vaccination, the rest generally adopt Inoculation and entertain an unfavourable opinion of Vaccination.

Answer 4th.—The periodical ravages of Smallpox, amongst the Natives of the town of Calcutta and villages, are to be attributed principally to the practice of Inoculation. The Inoculators carry the pestilential matter from one locality to another, and therefore diffuse the plague over the whole district; so that Inoculation should be looked upon as one of the chief causes of the dissemination of Smallpox. The *Ticcadars* wander about the towns and villages during the months of February, March, April and May, when they persuade the middle and lower classes of people to allow them to inoculate their children.

There are numerous families who neither inoculate nor vaccinate their children. Whenever one of them has been naturally attacked by Smallpox, they superstitiously consider that the goddess of Smallpox (*Situla*) is propitiated by one she has taken, and will leave the others alone. Thus they all remain, from generation to generation, uninoculated and unvaccinated in that family, however it be increased.

*Replies to Questions
by Pundit Moodusoo-
den Gupta.*

This is the case generally with the middle and lower classes of the Hindoo population of the town and villages. They generally fall victims to the violent attack of Smallpox caused by the contagion arising out of the Inoculation of the other families, for when the *Ticcadars* inoculate the children in their neighbourhood, they who observe the above-mentioned customs are infected by the infection of Inoculation, and thereby the plague is propagated as I witnessed this year in Burra Bazar. The greater portion of the Hindusthani inhabitants of the town, both rich and poor, died of Smallpox ; many survived, and others are still suffering from the disease.

The Hindusthani people are most bigotted in regard to *Situla*, and they say that if *Matta* or Smallpox comes naturally into a family, it is favourable and good : in this belief they do not allow themselves to be inoculated nor vaccinated, therefore they are generally attacked by the disease in a severe form.

I have been informed by good authority that one of the Native *Ticcadars* named Bissonath Mali, got 12,000 rupees by attending the Hindusthani Smallpox patients this year.

About one-fifth of the Hindoo population of the town and villages, though they adopt Inoculation, are still deterred from inoculating their children by certain reasons. This is generally the case with large families

* Inoculation not being practised during pregnancy, the wives of various brothers, living together, stand thus opposed to it, one or other being this way always, if many married women live together.

living in the same house, where the successive pregnancies * do not allow of Inoculation amongst their children, who thus remain unprotected for 10 or 12 years. This rule is always observed by the Hindoos, consequently when the children in the same neighbourhood are inoculated, the uninoculated children of the families alluded to are affected by the contagion of Inoculation. Thus this mischievous practice of Inoculation causes many deaths amongst the Hindoo children.

I have said that Inoculation is one of the chief causes of the promulgation of the plague of Smallpox, but it must be remembered that there is, at certain seasons of the year, a proneness to the spontaneous attack of the disease so far as can be ascertained. Whether this depends on atmospheric variations, or any other similar causes, has not, I believe, been made out.

The neglect of the Municipal improvement of the town should be reckoned as another cause of the malignity of Smallpox in Calcutta.

In the interior of the Native part of the town, I have observed that the mere sight of the filthy drainings and small and shallow tanks con-

taining putrid water, excites sickness, particularly in Simlah, Jorasanko, Bastala Gully, Muchooabazar, Comartolli, Puttereaghatta, Panchanund Tollah Gully, Colootollah, Harkata Gully, &c. Narrow and unclean lanes, close habitations, filthy drainings full of putrid water and animal water, can give rise to not only the plague of Smallpox but to any epidemic plague amongst the Natives of Calcutta.

(Signed) MOODUSOODEN GUPTU.

CALLCUTTA ; }
18th April, 1850. }

*Replies to Questions
by Pundit Moodusooden Guptu.*

FROM THE EDITOR OF THE BHASKUR,
TO BABOO RUSSOMOY DUTT.

*The Editor of the
Bhaskur to Baboo
Russomoy Dutt.*

I am gratified by the persual of your note. As far as I have been able to ascertain, I write. There may possibly be some mistake in what I may have ascertained from the communications of others.

You desire to know what number of persons of the upper and middle class of society in Calcutta adopt English Vaccination. I can only say that for a long time past, English Vaccination has been in practice in this country (city) and in the suburbs round the city as far as 25 coss (50 miles) it is in course of being adopted. Every month, in an average, 300 persons are vaccinated, but within the months of Falgoon, Choytro, and Bysack, 5 to 6,000 persons are vaccinated. I think among the principal inhabitants of Calcutta, three-fourths adopt English Vaccination, viz., in the Tagore family no one is inoculated in the Bengalee system. In our family Vaccination is adopted. The Rajah's family at Bhookylas, Sing's family at Jorasanko, Bhoyrob Chunder Ghose's family, Dutt's family at Molungah, and other principal men have adopted Vaccination. Among the chief men about a quarter remain in old practice. Among the middle class men, Sets and Bysacks and the Sooburno Banicks (Barber castes) who are disciples of Ghossamees, a greater portion do not adopt Vaccination. Among the poorer class about seven-eighths have adopted Vaccination, and they are all cured. None die of English Vaccination. We have already written on the merits of Vaccination, and will write more. I have also heard that Raja Kalikrishna's eldest son was vaccinated. You can ascertain this by writing to the Rajah.*

(Signed) GOURISUNKER BATTACHARJEE.

* I wrote to Rajah K. and he replied, that in his family Inoculation (old Native system) is adopted.

*The Editor of the
Bhaskur to D. Stewart,
Esq., M. D.*

FROM THE EDITOR OF THE BHASKUR,
TO D. STEWART, Esq., M. D.,

Secretary, Smallpox Committee.

Dated 20th April, 1850.

MY DEAR SIR,

In reply to your favour of the 16th instant, I have the pleasure to inform you, that you may use my name in verification of the fact of 300 lives having been lost, out of 1,000 persons inoculated, at Hooghly this year.

Yours, &c.,

(Signed) GOURISUNKER BATTACHARJEE,
Editor of the Bhaskur.

20th April, 1850.

No. 423.

*W. H. Elliott, Esq.
to D. Stewart, Esq.,
M. D.*

FROM W. H. ELLIOTT, Esq.,

Magistrate 24-Pergunnahs,

TO D. STEWART, Esq., M. D.

Calcutta, dated 30th April, 1850.

SIR,

In reply to your Circular Queries about Smallpox, I have the honor to submit the following remarks.

Ques.—Do you know any instances of Smallpox being introduced into a family by a *Ticcadar* and the disease thereafter propagating itself, and producing death or deaths in the family?

Ans.—Baboo Hurrishunder Mookherjea mentions 2 cases in Ooturpara. Baboo Govind Persad Bose mentions the same number and says he has *heard* of several, and also 14 cases of deaths consequent on Inoculation within his own knowledge during the last season!

Ques.—Name any number of respectable Hindoo families, from your own knowledge, who now adopt Vaccination and discourage Inoculation, by precept and example?

<i>Ans.</i> —Baboo Hurrishunder Ghose,	} Calcutta.
„ Ram Chunder Ghose,	
„ Ramgopaul Ghose,	
„ Shama Churn Ghose,	
„ Ishur Chunder Ghosal,	

Baboo	Seebnarayn Chatterjea,	}	Bhowanipore.	<i>W. H. Elliott, Esq. to D. Stewart, Esq., M. D.</i>
„	Debnarayn Mookerjea,			
„	Prankishun Mookerjea,			
„	Kaseenath Mookerjea,			
„	Joykishun Mookerjea,			
„	Chundee Churnd Mookerjea,			
„	Seebnarain Chatterjea,	}	Kidderpore.	
„	Ramdhun Ghose,			
„	Mudun Mohun Chatterjea,			
„	Ram Das Moonshee,			
„	Boiakant Bhuttacharj,			
„	Ramkishun Goopt,			
„	Gopal Chunder Banorjea,	}	Bhowanipore. Chitpore.	
„	Ramnarain Mookerjea,			
„	Bykuntath Chowdree,			
„	Kishna Mohun Mookerjea,			

Ques.—Name any respectable Hindoo families who still prefer the old practice of Inoculation, and who discourage Vaccination ?

Ans.—Baboo Parhetee Churn Banorjea, {
Bhowani-
pore.
} I believe Govind Persad
 „ Mudhoosoodun Holdar, .. {
Bhowani-
pore.
} Bose is quite
 „ Rajnarayn Banorjea, ... {
Bhowani-
pore.
} correct in say-
 „ Mudhoosoodun Dutt, ... {
Bhowani-
pore.
}
 ing that, “with the exception of a very few families in Calcutta and the suburbs, almost the whole of Bengal prefer the old practice and discourage Vaccination.”

Ques.—What do you think are the chief causes which tend to set up Smallpox among the Hindoos of the suburbs of Calcutta, and to maintain and promulgate it in certain localities ?

Ans.—The letters now before me attribute the spread and continuance of the disease to

1. Inoculation.
2. General uncleanness of persons, clothing and residence.
3. Bathing in Tolly's Nulla, defiled by all manner of filth, and especially by dead bodies.
4. The prejudices of the *Itsha* families against the use of *any* protective influence, whether of Inoculation or Vaccination, or precaution in time of pestilence.

The remarks of Baboo Govind Persad Ghose, on this point, are well worth perusal.

W. H. Elliott, Esq.
to D. Stewart, Esq.,
M. D.

5. In Thanna Nowhazaree, Kidderpore, 17 *Ticcadars* have inoculated 1,127 persons, of whom 10 have died.

In Thanna Kaleeghat, 17 *Ticcadars* have inoculated 692 persons, of whom 4 have died.

In Thanna Entallee, 26 *Ticcadars* have inoculated 633 persons, of whom none have died.

In Thannah Chittpoor, 6 *Ticcadars* have inoculated 134 persons, of whom 5 (out of 80 inoculated by one man) have died.

Total *Ticcadars* 66, persons inoculated 2,586, died 19.

Such is the report made to me by the four Darogahs of the suburbs. It is probable that they are nearly right as to the number of *regular* Inoculators ; but the number inoculated and the ratio of deaths depend upon their statements only, which I fear are not to be trusted. Govind Persad says that he knows of 14 deaths from Inoculation. If such a number have come within the knowledge of one man, what must the whole amount be ?

The Entallee Darogah mentions 39 persons vaccinated, and the Kaleeghat Darogah 52 persons. The other two Darogahs mention none. Dr. Strong's Vaccination Report of Bhowanipore near Kaleeghat, gives a much larger return, but I have very little faith in the returns of the Native Vaccinators.

6. I regret to state that I have no records from which I can give any idea of the number of deaths from this dreadful disease, but it is admitted on all hands that it has raged with unprecedented severity, and that the number of deaths has been awfully great.

7. It will be very difficult to adopt any measure for obtaining Returns of the mortality in the Mofussil, which shall not prove oppressive to the people, who have not, as in Calcutta, particular *ghauts* and grounds where alone they can burn and bury, but, if with the sanction of the Superintendent of Police, any such measure can be carried out, I shall gladly enforce it.

8. From all I have heard on the subject, I cannot but believe that Inoculation is *the* evil to be contended with ; and although I am well aware that Vaccination in this country is considered inferior as a prophylactic measure to vaccination in England, and that it will require some years to render it accessible to the great mass of the Natives, I am yet most anxious to see Inoculation altogether prohibited by Legislative enactment, and severe penalties prescribed.

9. I have heard that in Java the Dutch make the Priest of every village personally responsible for the Vaccination of every child within

six months of its birth, and I should be glad to see our Government exerting the same parental control over the Natives here, and making the Brahmins useful in the same manner, or the Gomashta of each village.

*W. H. Elliott, Esq.
to D. Stewart, Esq.,
M. D.*

I have the honor to be, &c.

(Signed) W. H. ELLIOTT,
Magistrate, 24-Purgunnahs.

30th April, 1850.

P. S. I submit herewith, in original, the communications I have received from Mr. J. Floyd, junior, and Baboos Govind Pursad Bose, Sumbhoonath Pundit, Unooda Pursaud Banerjea and Hurrishunder Mookherjea.

QUESTIONS to and ANSWERS of MR. J. FLOYD, Junior, Allipore.

*Questions to and
Answers of Mr. J.
Floyd, Junior.*

Ques.—Do you know any instances of the Smallpox being introduced into a family by a *Ticcadar*, and the disease thereafter propagating itself and producing death or deaths in the family?

Ans.—No; but I have been told of one case, by means of which the disease was extended to a neighbouring family and nearly proved fatal to some of its members.

Ques.—Name any number of respectable Hindoo families from your own knowledge who now adopt Vaccination, and discourage Inoculation, by precept and example?

Ans.—I have heard the practice of Inoculation spoken against by some Natives, especially by one respectable Hindoo, who had experienced its direful effects in his own family, every member of which had been inoculated. The result was that his wife miscarried subsequently, and his son died from its effects.

Ques.—Name any respectable Hindoo families who still prefer the old practice of Inoculation and who discourage Vaccination?

Ans.—I know of none.

Ques.—What do you think are the chief causes which tend to set up Smallpox among the Hindoos, and to maintain and promulgate it in certain localities?

Ans.—Humanly speaking, I should say *Inoculation* and the destitute condition of the majority of the Natives. They are unable to avail themselves of the medical skill now extant, or to remove the healthy members of their families to a distance on the first appearance of the

Questions to and
Answers of Mr. J.
Floyd, Junior.

disease. A hut scarcely large enough to contain a cow, generally affords shelter to 5 or 6 persons. They all occupy the same room, share the same bed and wear one another's clothes. Neighbours, far and near, come either through sympathy or curiosity to see the afflicted. They do not know, or believe, or care whether the disease is contagious or otherwise, but go and handle them, and even allow their children to mingle with those who may just be recovering. The mats and apparel of diseased persons are seldom or never destroyed. If too filthy to retain, they are either washed in some tank to which hundreds resort, or stealthily removed to a village close by during the night, and there left, regardless of consequences. As long as the Smallpox rages in a Hindoo family, its healthy members are prohibited from shaving, paring their nails, or changing their attire. They wait upon the sick while at home, and go abroad with the virus, which they cannot well avoid, adhering to their persons and clothes. If Mahomedans, they are not easily detected, as they seldom observe all the superstitious rites and ceremonies of the Hindoos; but the unshorn beard and woful appearance of the Hindoo, from long abstinence, is a sure indication of Smallpox having attacked (either naturally or by means of Inoculation) some inmates of his house.

I have no hesitation in stating that wherever *Ticcadars* have been at work, Smallpox has been *maintained* for months, if not propagated. From what I witnessed a few days ago, I am of opinion that the opening of the pustules to prevent the resorption of the matter into the blood, is left to ignorant women who, in many instances doubtless, collect the matter from Smallpox of the most virulent character, and sell it to the no less ignorant *Ticcadars*, who, in their eagerness to make money go from village to village spreading the contagion.

Many of the private tanks may well be considered the hotbeds of disease. Seldom do we see one free from weeds; rankest jungle is allowed to grow on the banks, and numerous water plants in the tanks of the wealthiest Natives. They never think of cleaning them out, not even when the weeds decay and discolour the water and render it offensive to the smell and disagreeable to the taste. Indeed I have often wondered how it was possible for the Natives to avoid disease in its most appalling form, when I have witnessed the most shameful neglect to their health and comfort. I think I may safely say that as far as this district is concerned, the Smallpox has been most prevalent at *Bhowanipore*, which can only be attributed to its being densely populated, and extremely filthy.

I do believe that more Hindoos than Mahomedans have fallen victims to the disease, which, in some measure, may be owing to the free use they make of river water. I have been disgusted at seeing a number of Hindoos in *Tolly's Nulla*, bathing and filling their pitchers in the immediate vicinity of a corpse in the last stage of decomposition. How far such practices may be fraught with evil can only be known to Medical men. Against these there can be no remedy as long as Hindooism lasts, and the water of the Ganges is supposed to contain virtues.

Leaving Smallpox patients at the Ghat to linger out their wretched existence, is by no means uncommon. While thus exposed numerous spectators gather round the sufferers, and before life is extinct they are conveyed down to the water, which flows from them towards a host of men, women and children who are either washing or engaged in their devotions. This is another objectionable practice, to say nothing of the truly destitute, who, *while laboring under the disease*, either resort to the Ghats themselves or are removed thither, in order to gain their subsistence by begging. Such occurrences may be rare in town ; but I fear they are not so at Bhowanipore, Tollygunge, &c., where a good many Ghats and places for burning the dead exist.

In conclusion, I would add my humble testimony to the good effects of *Vaccination*. I got five of my own children vaccinated in February last, and several Native children belonging to my school, and up to the present time, I am thankful to say all are doing well, whereas some of the children of the Native school who were inoculated by their parents in opposition to my remonstrances, suffered dreadfully.

(Signed) J. FLOYD, Junior.

ALLIPORE, }
29th March, 1850. }

REPLIES to QUESTIONS at page xxvii, by BABOO GOVIND PERSAD BOSE.

1. Yes, I know several instances, though there is a practice amongst our Natives of inoculating *all* at a time of such members of a family as were not before inoculated ; yet owing to the superstitious belief and prejudices so much idolized by them, instances are not rare of persons being excluded from the protective operation when others are inoculated in the house, and subsequently being attacked with the disease which often proves fatal. It is only the other day that I heard of a young man and a

*Questions to and
Answers of Mr. J.
Floyd, Junior.*

*Replies to Questions
by Baboo Govind
Persad Bose.*

*Replies to Questions
by Baboo Govind
Persad Bose.*

young woman in a Brahmin family at Ootterpara, the former of whom was a very useful hand in the Surveyor General's Department, being carried off by Smallpox just under the circumstances above stated, and I know of some cases of fatal occurrence by Inoculation in Bhowanipore, Sakarypara, as well as in some other villages*

* In Gocharun, 5 boys and 4 girls.

In Barraset, 1 boy and 1 girl.

In Mungulpore, 3 girls.

(Barraset and its neighbourhood) in the southern part of the district, all of very recent dates. Though an advocate of Vaccination, I myself allowed the abominable custom of Inoculation to be introduced into our own family by the predominant and overruling opinions of the elders of the house, and I regret to say that my only son, a boy of about 7 years of age, has lately fallen a prey to it.

2. There may be other respectable Native families in Bhowanipore who adopt Vaccination as a protective, amongst themselves, but I know, for certainty, that Baboo Doorgapersaud Roy Chowdry, Zemindar, Baboo Debnarain Mookerjea, Baboo Ramdhone Ghose, Baboo Sibnarain Chatterjea, (vakeel of the Sudder Court) and Baboos Mudden Mohun Chatterjea and Ramdas, Moonshee of the 24-Pergunnahs Magistrate's Office, have introduced it into their respective families.

3. With the exception of a very few in Calcutta, and in the Suburbs, I can safely say that almost the whole of Bengal, either through ignorance or prejudice, prefer the old system of Inoculating, and of course thereby discourage Vaccination.

4. For the answer of the fourth question, a thorough knowledge of natural phenomena affecting air, water, &c., of a place is positively needed; and as an unprofessional man I do not venture to advance any thing in the shape of ascertaining the cause of "setting up of the Smallpox," which, I believe, has always its origin with other epidemics in some irregularities in the general system of nature. But it cannot be altogether out of place to add, that the present system of Inoculation does much in the way of "maintaining and propagating" the disease in question, for unscrupulous as the generality of our Natives are as to the idea of a contagion, or, in another word, of infection, they never hesitate, nor indeed entertain any doubts of bad consequences to visit their friends and relations who have been inoculated or affected with the disease, or to carry on the different kinds of intercourse with persons subjected to this disease, and who are but half in a convalescent state, nay to purchase articles of food from such people. Hence it is no wonder that the malady continues to rage with obstinacy, where it has once broken out.

Ablution in the Tolly's Nulla, into which the greater number of corpses of persons dying of Smallpox is deposited, and the spontaneous use of its water by the inhabitants for domestic purposes, is not to be trifled with, when the cause of the propagation of Smallpox is under investigation. It behoves here also to notice a false prejudice under which some of the Hindoo families totally refrain from having recourse to any kind of protective whatsoever, on a tradition that in the days of yore their ancestors were visited by Smallpox without Inoculation, which they interpret *Itsha* or a favourable visitation of the *Goddess Situla*, and have thence made it a family rule never to adopt any kind of protective by which they apprehend that the goddess will be incensed, and it is chiefly in these families that the malady first appears till it becomes general in the manner I have related in the first part of this answer.

This last evil, therefore, I beg to say ought to be the first to call for the interference of the authorities, to be put down by compelling all such families to break through this foolish rule of their own making. Enquire in every *Mohulla* where the disease is now awfully raging, and it will be found out that more than three-fourths of the population, already carried off by Smallpox, were from the *Itsha* families I have above described.

BHOWANIPORE, } (Signed.) GOVIND PERSAD BOSE.
30th March, 1850. }

*Replies to Questions
by Baboo Govind
Persad Bose.*

REPLIES to QUESTIONS at page xxvii, by BABOO SUMBHONAUTH PUNDIT.

*Replies to Questions
by Baboo Sumbhoo-
nauth Pundit.*

1. None from my personal knowledge. I have seen, however, the disease caught from one member of a family by another, and from one house to another in my neighbourhood, where the disease broke out the earliest; and out of scarcely 150 persons no less than forty-one, of all ages, caught the disease, and of whom 20 persons died of nearly one kind of the disease. Of these, one had the disease *also* naturally some years ago, his name was Lochundoss. All those who died belonged to low families, living in huts, except one whose family had a better house. The disease broke out in this quarter as early as September last. The rage of the disease subsided about two months ago, but it has not yet left the quarter; one patient is still suffering.

2. I am ashamed to acknowledge that I had seldom made enquiries regarding this subject before. I am of a different tribe from the north of India, and all of us here, as in our Native country, never adopt either

*Replies to Questions
by Baboo Sumbhoonauth Pundit.*

Vaccination or Inoculation. I know of two Native families who have adopted Vaccination in preference to Inoculation, Baboos Chundernath Chatterjea and Nobogopaul Mullick, and of two who still adopt Inoculation, viz., Baboo Doorgachurn Dutt and Baboo Bhogobaun Chunder Roy's families.

3. I know only of one, the family of Baboo Govind Persad Bose, excepting the Baboo himself, who naturally can have no hand in such family affairs while he has elders whom he is bound to obey. In his family about two months ago, out of 9 persons inoculated, 8 recovered, and one child died.

4. I should think bad treatment while the disease lasts, and negligence of cleanliness by those who frequent the sick chamber, or tend the patient, proceeding from an ignorance of the laws of infection. All natives admit the disease to be infectious, but very few know the nature of this infection, or take any proper precaution to avoid it.

(Signed) SUMBHOONAUTH PUNDIT.

BHOWANIPORE, }
29th March, 1850. }

*Replies to Questions
by Baboo Unorda
Pursad Banorjea.*

REPLIES to QUESTIONS at page xxvii, by BABOO UNORDA PURSAD BANORJEA.

1. The instances that have come within my observation are very rare. Inoculation compared with Vaccination is, I consider, unsafe, inasmuch as it subjects patients to the possibility of a large number of pustules breaking out on the body, sometimes equal to the disease itself, which it is intended to guard against; but as the persons inoculated are carefully kept secluded, and as the custom is to inoculate all persons of a family and even of the neighbourhood at the same time, I do not suppose Inoculation could spread the disease, except under circumstances stated in the answer to the 4th query.

2. There are many Hindoo families in Calcutta and its vicinity, especially the intelligent class who have adopted Vaccination. Of these, I may mention the names of Baboos Hurrishunder Ghose, Ramchunder Ghose, Ramgopaul Ghose, Samachurn Dey and Issurchunder Ghosal in Calcutta, and Sibnarain Chatterjee and Debnarain Mookerjee in Bhowanipore.

3. The number of respectable families of this class is much greater when compared with those who vaccinate. In the interior, Vaccination

is seldom, if at all, resorted to, and I have not been able to form an opinion how far it proceeds from religious prejudices, or from the difficulty of obtaining assistance of men who profess Vaccination.

*Replies to Questions
by Baboo Unorda
Pursad Banorjca.*

4. A large class of the people of this country, most of the *Baneeahs* and *Tauties* of Calcutta, neither vaccinate nor inoculate ; and I consider that the true cause of this disease propagating itself may be traced to them. Some of them first catch it from people inoculated in their neighbourhood, and then spread it among themselves, till it assumes an epidemic shape. The disease rages virulently in the most thickly populated localities. The defective treatment of the sickness, and utter negligence or ignorance of the natives to adopt measures to neutralize the infectious influence of the disease, may be also the reasons for its extensive propagation.

(Signed) UNORDA PURSAD BANORJEA,

29th March, 1850.

Bhowanipore.

REPLIES to QUESTIONS at page xxvii, by BABOO HURRIS CHUNDER MOOKERJEA.

*Replies to Questions
by Baboo Hurris
Chunder Mookerjca.*

1. Yes, I know of a family, Baboo Bhuggoban Chunder Mookerjca's at Ootterpara, in which family a young man of about 22 and a girl of about 14 died of Smallpox, propagating itself, after it had been introduced by a *Ticcadar* among the children of the house by Inoculation. The deaths occurred on the 25th March, instant.

2. The families of Baboos Debnarain Mookerjca,* Prankissen Moo-

* These are all near relations of each other. I mention them separately as they have been living separately, and consequently exercising separate influences during the last ten to thirty years. They had become advocates of the safer process at a very early period of its introduction.

kerjca, Cossynath Mookerjca, Joykissen Mookerjca, Chundy Churn Mookerjca, Sibnarain Chatterjee, and Calla-

chand Day, Sub-Assistant Surgeon.

3. The families of Baboo Parbutty Churn Banerjca, Modoosoodun Holdar, Rajnarain Banerjca, Gopind Persad Bose, and Modoosudun Dutt.

The above named families have actually had their younger members subjected to Inoculation this past season. The practice, I should say, is held in preference very generally in Bhowanipore, as in other parts of the country.

4. It is impossible for an unprofessional man to answer this question, but with great diffidence, the most careless observer however could not have refrained from generalizing, in some measure, upon the appearances

*Replies to Questions
by Baboo Hurris
Chunder Mookerjee.*

which more or less forced themselves upon his attention. I have had my own thoughts upon the matter, and they are these. I have observed this disease, unlike Cholera or Fever, attack almost in equal proportions, all ranks of people ; those who enjoy the comforts of life in abundance, alike with those who are destitute of them. Any preponderance that may be observable in disfavour of the poorer classes is ascribable rather to the less general resort had by them to either of the prophylactic processes in use, and is no indication of their being, from their mode of living, more liable to the disease than the higher classes. The latter, it must be admitted, have habits in regard to personal cleanliness in general, and supercutaneous cleanliness in particular, greatly superior to those of the former, and yet observation does not warrant the inference that exemption from the disease is thereby assured to any the slightest extent. Nothing conclusive can therefore be drawn from observed differences in modes of living, quality of food, or sufficiency of clothing.

5. I share in the general belief that at least once in life, and that generally in the first moiety of it, the disease is *sure* to manifest itself, in all the virulence of its natural form, unless the system should have been previously secured by the artificial saturation induced by the process of Inoculation, or protected (at less risk certainly, but perhaps less efficiently too) by Vaccination. If this belief be well grounded, I venture to ascribe the rise and progress of the epidemic to the want of consistency on the part of the people in this part of the country, in uniformly subjecting their children to one of the protective processes in due time ; every subject in whom the disease has spontaneously broken out or been artificially induced, forms a focus of contagion to which every unprotected individual, within a limited range is exposed, and as there is scarcely a village without a family having religious objections to Inoculation or Vaccination, there is no want of these depôts of infection, at convenient distances, whence the disease might propagate itself. There is a whole quarter in Bhowanipore containing about a dozen houses in which all protectives or alleviations of the disease are forbidden by a traditional prejudice. This quarter has suffered the most during the last six months. The disease had broken out in the family of a relative of mine, how long back I don't know. Two boys have been attacked with it again, and neither present nor past experience, I fear, will induce them to seek the safety of the children in Inoculation or Vaccination.

(Signed) HURRIS CHUNDER MOOKERJEE.

FROM DR. J. MONTGOMERIE, M. D.,
Garrison Surgeon, Fort William,
 TO DR. D. STEWART,
Officiating Secretary, Smallpox Committee.

*Dr. J. Montgome-
 ric to Dr. D. Stewart,
 dated 9th May, 1850.*

Dated 9th May, 1850.

SIR,

In reference to the various inquiries contained in the Circular of the Special Committee of Enquiry, appointed to investigate into the extent and ravages of Smallpox, I have little or nothing to communicate, that part of the Garrison under my immediate care having fortunately hitherto been nearly exempt from the disease, not a single case having occurred among the Staff or their families, and only one case in a Sepoy of the Reserve Guard. This man had sickened while on duty at one of the Town Guards, was admitted into the sick receiving room, and on appearance of the eruption, agreeably to Garrison Regulation, was sent off by water to the Hospital of his Regiment at Barrackpore.

A few cases have occurred in H. M.'s 70th Regiment, viz., 1 admitted in January, 6 in February, 2 in March, in all 9 cases ; 7 were very modified and mild, 2 severe, 1 of these fatal. The 3 first were believed to have caught the disease in Hospital ; these men were all treated by their own Medical Officer, who will doubtless report upon them.

There have not as yet been any cases reported among the families of the Staff Non-Commissioned Officers residing at Cooley Bazar, and only 2 cases of variola, and 5 of varicella among the Natives of the Arsenal Establishment have been treated at the Native Hospital during the months of January, February, March and April. These men resided at Cooley Bazar.

My report, being thus chiefly of a negative nature, can only be of value in as far as it shews a remarkable exemption from Smallpox in the Garrison of Fort William, at a time when the City and Suburbs have been ravaged by this formidable, loathsome, and highly contagious disease ; and this exemption, I think, may be ascribed to various causes, viz., Vaccination, partial isolation of the inhabitants of the Garrison, immediate removal of the sick, and great cleanliness and thorough drainage of the Fort.

When so many cases of Smallpox have occurred after Vaccination, among the inhabitants of Calcutta, we cannot ^{con-} either ascribe our remarkable immunity to it, and had the sick been ^{and} ~~re-~~ ^{retained} in Garrison, I have no doubt we should have had numerous cases to report. The

Dr. J. Montgomerie to Dr. D. Stewart, dated 9th May, 1850.

Garrison Regulation however, enforces the immediate removal of the sick to the General Hospital.

The European troops (particularly the women and children, the latter of course, most obnoxious to the disease), have little or no communication with the Native part of the town population, and are thus partially isolated, and the strictest cleanliness is enforced in the Barracks, which are besides roomy and well ventilated, and at present not over crowded. Moreover the whole of the Fort is sedulously kept clean, the necessaries being cleaned out every night, and the contents removed in barrels on carts. The privies of the Natives are chiefly situated over the western end of the *cunette*, while the drainage is as perfect as it can be.

The surface of ground within the Fort, although nothing elevated above the general level of the surrounding plain, is most thoroughly drained by shallow, open, surface drains sloping from the centre to each gateway, and passing under the ramparts across the dry ditch into the *cunette*. The drains are washed and swept every morning and sprinkled with lime ; during heavy rain some of the roads, especially the one in front of the Staff Barracks, is partially flooded, but this passes off completely in the course of half an hour after the heaviest shower. In the dry season, fresh river water is let every flood tide into the *cunette*, filling it up nearly to the brim, and this is let out again at ebb, the water by means of sluices being made to circulate, passing round from west by north, east and south, round to the west again, when it escapes into the river at low water, thus washing out the whole drainage daily. During the freshes, however, this cannot so easily be effected. In the months of August and September, the ebb for two or three days in the neaptides does not fall below the level of the curb of the *cunette*, so that if heavy rain was to fall at this time, the ditch would be apt to be flooded, and the chief aim, since I have resided in Garrison, has been to keep the ditch as dry as possible. This has been most effectually managed by letting off, during the rains, as much water as possible, from the *cunette* at low water, which it is always practicable to do more or less, excepting for three days during each neaptide, so that for the last three years the water has never lodged in the dry ditch, even in a partial degree, for more than a day or two. As an additional safeguard, the grass in the ditch is kept as close cut as possible during the rains ; so that if, by accident, an unusual fall of rain should flood the ditch, little vegetable matter would be left to

decay. I am of opinion, however, that the water may, at all times, be drawn off before it could cause destruction to vegetation.

*Dr. J. Montgomerie
to Dr. D. Stewart,
dated 9th May, 1850.*

Some apology is necessary for the baldness of this report in relation to the immediate subject of inquiry of the Committee. I am inclined, however, to think it may not be without some interest, as demonstrating the advantages of Vaccination, with isolation, thorough ventilation, cleanliness and good drainage, some of which, however, I fear can only be obtained under strict Military discipline.

I have the honor to be, &c.

(Signed) W. MONTGOMERIE, M. D.,
Garrison Surgeon.

FORT WILLIAM, }
9th May, 1850. }

FROM DR. W. HARVEY,

Surgeon H. M. 70th Foot, General Hospital,

TO D. STEWART, Esq.

Calcutta.

*Dr. W. Harvey to
Dr. D. Stewart,
dated 10th May, 1850.*

Dated 10th May, 1850.

MY DEAR SIR.

I have much pleasure in communicating to you a few of the principal circumstances connected with the appearance of Smallpox in Her Majesty's 70th Regiment, in the months of January, February and March last; and in doing so, in order more fully to explain the subject, I shall first give you some information regarding the orders in force in the Royal Army with respect to Vaccination, and as Smallpox is a disease, comparatively speaking, of rare occurrence in the Royal Service, its scarcity may be, in a great measure, attributed to the strictness with which Vaccination is attended to.

In the first place, at the examination of every man prior to his being admitted into the Service, the Inspecting Medical Officer has to be very particular in observing whether the man bears marks of having been vaccinated, or of having gone through an attack of Smallpox; and has to enter in his Register of Recruits against each man's name which of the two the man has the mark of, and "Every Recruit who has not passed through Smallpox or the Vaccine disease is, if possible, to be vaccinated by the Inspecting Medical Officer; and if the exigencies of the Service will not permit this being done, the circumstance is to be re-

*Dr. W. Harvey to
Dr. D. Stewart,
dated 10th May, 1850.*

ported to the Surgeon of the Corps to which the man belongs." (*Art. XVIII., Page 47, Regulations for the Management of Army Hospitals.*)

Secondly. Every Medical Officer, whether of the Staff or belonging to a Regiment, has to furnish an Annual Return of the Recruits examined by him, stating the number of Men approved of, and rejected, with the causes of rejection, and has to fill up the following Certificate attached to that Return.

"I certify that of the above Recruits I carefully ascertained that * * * had had Smallpox ; that * * * had been satisfactorily vaccinated ; and that I have vaccinated the remaining * * * ; of this number I am satisfied with the Vaccination of * * , but after * * times repeating the process in others, I do not feel satisfied ; and have accordingly sent such statement to the Surgeons of their Corps with extracts of their cases from my Vaccination Register. Of * * women and children who accompanied the approved Recruits, I have satisfactorily vaccinated * * women and * * children, and I have sent the extracts from my Vaccination Register of the * * women and * * * children to the Corps they went to.—(*page 50 Regulations above quoted.*)

(Signed) A. B., SURGEON."

Thirdly. The Regimental Surgeon "is responsible and is required to report yearly on the subject that every man, woman, and child, belonging to the Regiment, bears unequivocal marks of either Small or Cowpox ; and is to keep a Register of the names and appearances on the days of examination of all Patients vaccinated. In all Stations where fresh virus can be procured every doubtful case, not only of Soldiers but of their Wives and Children, should undergo Vaccination. If any one, who has not had Smallpox, shall be unwilling to be vaccinated, the Surgeon should endeavour to remove the prejudice by representing the harmless nature of the operation, and its probable advantages. Any cases of Smallpox are to be immediately communicated to the Director General in a special Report, specifying the name and age of each individual, and whether bearing previous and satisfactory marks of Vaccination, and by whom vaccinated.

"If the Patient be a Soldier, and no marks of Vaccination exist, such fact should be mentioned in the said Report, with a statement shewing the date of his joining the Corps, by what Medical Officer examined on enlistment, and with a copy of any note or memorandum transmitted by that Officer to the Regimental Surgeon. The Surgeon, with his Yearly Report, is to transmit a list of the Men, Women and Children who have had

neither Smallpox nor Cowpox, and, through ignorance or prejudice, have objected to Vaccination." (*Art. 15, Page 12, Regulations above quoted.*)

*Dr. W. Harvey to
Dr. D. Stewart,
dated 10th May 1850.*

"*Fourthly.* General Officers, in command of divisions at their half year's inspections of Regiments, have to inquire and report whether Vaccination is regularly practised in the Regiments under their command."

From all the above Regulations you will see that the Royal Army is, as it were, strictly guarded at the very entrance to prevent Smallpox being admitted into it ; but notwithstanding every precaution, a few cases do occasionally appear, and in addition to the instructions contained in one of the orders above quoted regarding them, the 17th Art. page 13 of the Regulations directs that " Patients, with infectious diseases as Fevers, Fluxes, *Smallpox* or Measles" should be kept separate from Patients with other complaints, &c. &c. The straw of the beds is to be burnt, &c., detailing other precautions to clear away the infection.

Having now given you some idea of the measures taken to prevent the introduction and spread of Smallpox in the Army, I shall shortly detail to you what occurred in the 70th since we landed in India. The Regiment arrived in the month of May 1849, the strength being 38 Officers, 1,000 Non-Commissioned Officers and Men, 128 Women and 142 Children ; 66 Men, 2 Women and 1 Child joined from Europe in November 1849 ; and 5 Men have been enlisted at Head-quarters, in India ; 25 Children not previously vaccinated (some born at home, some on the passage, and some in India) were vaccinated with success in December and February last, so that we may reckon the whole of the Regiment to have been in a state of protection from Smallpox. However, on the 17th of January, a case of Smallpox was admitted. This man had been in Hospital for some weeks with Ophthalmia, and was only discharged on the 15th, that is, two days before the admission with the Smallpox. The eruption was noticed on the 19th, therefore he must have caught the disease in the Hospital. On the 4th of February, two other men, patients with Ophthalmia were attacked with the disease and as they were in the same ward though at some distance from the first patient (who had been separated from the others when the nature of his case became apparent) it was thought that they had caught from him ; and in order to prevent the further spread of the disease, the whole of the patients were removed from that ward with the exception of the Smallpox cases. On the 5th February a severe case was admitted from Barracks, on the 8th another (modified) ; on the 11th another, (this one proved

*Dr. W. Harvey to
Dr. D. Stewart,
dated 10th May, 1850.*

fatal) ; on the 15th another modified. From this date there were no more cases until the 12th of March, and 23rd of March, when two others were admitted, both cases of modified Smallpox. On examining the Register of Recruits, it is stated that each of these men bore marks of Vaccination at the time of their enlistment (but on examining them now, after the Smallpox attack, it is found that the marks are only distinct in four of them, and I shall reduce the cases to a sort of Table as under.)

No.	Nature of Disease.	Time of Admission.	Mark of Vaccination now present.
2	Confluent,	5th, and 11th Feb.,.....	{ No marks of Vaccination in survivor. (1 dead.)
2	Distinct, ...	17th Jan., and 4th Feb.,...	{ Last has evident marks, first has none.
5	Modified,	{ 4th, 8th, and 15th Feb., } { 12th, and 23rd, March, }	{ 2 have no marks, 5 have marks.

There is some difficulty (in fact I am unable) to account for the appearance of the disease in the man first attacked ; for I have been unable to trace the disease among the Native servants attached to the Hospital before the 7th of March, when the head Cook got the disease ; and a few other cases occurred among their families in March and April. No particular precautions were taken to prevent the men going into town, at that time, as they were in the habit of doing ; nor did I deem it necessary to do so, as we had so few cases of the disease. I have very little doubt that the two second cases caught it from the first man, and all those that came after, must have got it about the town in all probability. I have seen a few cases in which *re-vaccination* was practised, and in which the pustule rose well and went through its course regularly, but I have not seen it practised to any extent. In some doubtful cases of Soldiers, which I had at home, a few succeeded ; on a few others it had no effect ; but as I can only speak about this from memory, I could not state any facts or give you numbers. I have already drawn this letter to a great length, and have been prevented sending it to you sooner on account of many interruptions.

Believe me, yours, &c.,

GENERAL HOSPITAL, CALCUTTA, } (Signed) W. HARVEY.
10th May, 1850. }

P. S. The strength of the Regiment at the time the Smallpox was among us was 46 Officers, 904 Men, 104 Women, 115 Children, a total

*Dr. J. Macpherson
to D. Stewart, Esq.*

FROM DR. J. MACPHERSON, M. D.,

1st Assistant, General Hospital,

TO D. STEWART, Esq.,

Officiating Secretary, Smallpox Committee.

Dated 1st May, 1850.

SIR,

In reply to your Circular of the 18th March, I regret to state, that I am unable to furnish you with information of interest or importance under any of the heads of your letter excepting No. 5.

With reference to it, I forward to you the accompanying "Report on Smallpox, as it has manifested itself in the General Hospital," and to it I have only to add a few words regarding the cases of disease which have appeared in the three Institutions under my immediate medical charge.

1. In the Great Jail, only one case of modified Smallpox shewed itself in the person of a European who had been confined for several months. He was kept isolated in the Jail Hospital, and the disease did not spread.

2. In the House of Correction, a European who had been confined for six months, and who was not directly exposed to infection, got modified Smallpox, and was transferred to the General Hospital where he did well.

Another apparently isolated case was that of a Native who had been in durance for four months. He was sent away to the Police Hospital, and none of the other prisoners caught the disease from him. A boy was also brought one day from the Police with the eruption in its earliest state, but he was immediately sent away.

3. Among the Burkundauzes belonging to the Jail and House of Correction, whose houses are outside the walls, four cases occurred—they were sent away, and I learn that 3 out of the 4 died.

4. In the European Lunatic Asylum, a female patient who had for many years been confined to the female compartment in one corner, got the disease, was transferred to the General Hospital and died. The disease did not spread. The only possible source of infection in her case was the matron of the Asylum, whose children had modified Smallpox, for which they had been treated in the General Hospital, but from which they had been discharged near six weeks before the

case in the Asylum occurred. The children themselves never had access to her.

*Dr. J. Macpherson
to D. Stewart, Esq.*

I have the honor to be, &c.,
(Signed) J. MACPHERSON, M. D.,
1st Assistant, General Hospital.

Report.—Smallpox has this season prevailed to a quite unprecedented extent. In the year of the last epidemic, 1844, only 16 cases were treated, whilst during the present season about five times as many have been admitted into Hospital. Indeed, we have already treated as many cases as were admitted during the course of the whole of the last twelve years.

As was the case in former epidemics, the disease reached its climax by the end of the cold weather, and is now gradually diminishing. This accords with what has been observed elsewhere ; and I observe, that in the General Hospital at Bombay, (where 32 cases in five years was the average number of cases met with,) the disease scarcely occurred, save in the months of January, February, March and April.

About 1 in 4 has been the rate of mortality this season, very much the same as that of the epidemic of 1844, or of the average of the last twelve years, and somewhat higher than the mortality at Bombay, as recorded by Dr. Morehead. The following Table will shew the distribution of cases and deaths during the months over which this Report extends.

	Admissions.	Deaths.
December,.....	4	1
January,	15	2
February,	30	7
March,	18	9
April,	9	1
	76	20

Of the cases admitted, 41 were vaccinated and had good cicatrices, 10 were not ; 25 vaccinated, but cicatrices not well marked. The cases may be divided into 46 mild or modified, 30 severe or confluent.

Dr. J. Macpherson
to D. Stewart, Esq.

Of the confluent cases, 12 were vaccinated with good cicatrices, 5 were not ; 13 vaccinated, cicatrices not well marked.

Of the fatal cases 8 were vaccinated with cicatrices well marked, 4 not ; 8 vaccinated, cicatrices not well marked. As to sex all were male but 11. As to age there were 8 children aged 5 years or under, of whom only 1 under 5 died. Of the 8 children 2 were not vaccinated.

As is frequently the case, Measles accompanied this epidemic. The admissions from Measles, were as under ; many children had first the one disease and then the other.

	Admissions.	Deaths.
December,.....	1	
January,	17	1
February,	3	
March,	2	
April,	2	
	25	1

The fatal case of Measles was from neglected pneumonia.

I am not aware that this epidemic was marked by any striking peculiarities. In the great majority of the fatal cases, the eruption had freely shewn itself and become confluent, and deaths seemed to be usually caused by obstruction to the breathing from swelling of the fauces and of the glottis (for no *sect. cadav.* were made). The result of Dr. Macpherson's experience is that "a few of the cases were complicated with hæmorrhage from the bowels, and in several instances a most troublesome diarrhœa accompanied convalescence. But there appears to have been no secondary fever, and few cases terminated fatally after the eruption began fairly to dry and desquamate." That of Dr. Cantor's, to whose lot a larger number of the bad cases fell, is somewhat different, and is as follows. "In all the fatal cases, the eruption had become confluent, resembling the effects of *ambustio*, extending over the entire surface of the body, and affecting the mouth, tongue and fauces. In this stage the face became livid and swollen, and hæmorrhage from the mouth, bloody purging, (sometimes *hæmoptysis*), dry tongue, with brown coat, *halitus cadaverosus*, and low typhoid delirium, were the

forerunners of death. In at least 2 cases, typhoid symptoms have killed the patients after desquamation has fairly commenced and has promised a better result." It may be stated generally that diarrhœa and boils were the most common sequela ; rheumatic pains occasionally followed, but the eyes did not suffer in any instance. The average period of death after admission was $8\frac{1}{2}$ days.

Little need be said regarding the treatment of a disease which must run its natural course ; but the use of nourishing diet and general support at an early stage seemed to be attended with benefit. There is one circumstance connected with treatment which deserves to be placed on record, and this is the striking fact that of the six cases first treated in the experimental ward with scruple doses of quinine for two or three days respectively, no fewer than five terminated fatally, or the mortality was at the rate of 83 per cent., while under the ordinary treatment it was only 21 per cent. It is extremely difficult not to imagine that the use of scruple doses of that medicine must have been in some way connected with this remarkable result.

(Signed) J. MACPHERSON,
1st Assistant, General Hospital,
May 1st, 1850.

FROM MR. APOTHY. E. GEORGE,
Park Street Dispensary,
TO D. STEWART, Esq., M. D.,
Supdt. Genl. of Vaccination.

Dated 16th May, 1850.

*Apothy. E. George
to D. Stewart, Esq.,
M. D., dated 16th
May, 1850.*

SIR,

In reply to your circular letter dated the 18th March last, requesting information relative to the Smallpox that has occurred epidemically lately in the City, I regret to say that my means of observation have been limited, owing to my practice being almost confined to the poor serving class of Natives, chiefly Mahomedans. I fear, therefore, that the remarks I have to offer will be deemed meagre and unimportant.

2. From enquiry, I learn that before the epidemic made its appearance in town in November last, the villages around Calcutta were first visited, and that it commenced in the southern portion of the 24-Pergunnah districts as early as October, causing the destruction of thousands of lives and the depopulation of whole villages.

Apothy. E. George
to D. Stewart, Esq.,
M. D., dated 16th
May, 1850.

3. When the Smallpox made its appearance in town, the poorer classes of the Natives were its first victims. It soon afterwards spread among all ranks and classes; and so great has been the mortality that it has not been paralleled by any of its past visitations in the recollection of the oldest inhabitants of this place. Most of the cases have, I fear, been of the confluent kind, and children and young persons the greatest sufferers. But few cases at present occur, and this favourable change is perhaps owing to the recent thunder-storms and rain.

4. Regarding the origin of the present epidemic, I am of opinion that it was spontaneous, and is attributable to some unknown atmospheric cause. Some persons have entertained the belief that it was set up by *Ticcadars*, but this is an erroneous opinion. Inoculation is only performed between the middle of January and the middle of March, and as the epidemic commenced before this period, the *Ticcadars* cannot be justly charged with having *originated* the disease.

5. But there is, I am informed, good reason for believing that the *Ticcadars* have been instrumental in diffusing and maintaining the disease. This is, however, not borne out by my own experience, for the majority of the cases that have come under my observation have not been inoculated, at least none of those lately brought to this Dispensary on account of sloughing of the cornea, suppuration of the joints and other distressing sequelæ. The densely crowded and ill-ventilated condition of the Native part of the town is, I conceive, the principal cause of the special spread and continuance of the contagious poison.

6. Inoculation has been practised among the Hindoos from time immemorial, and all, with few exceptions, I am told, encourage it. The Hindoos have, by long usage, acquired a sort of *religious* prejudice in its favour; but as they are not subject to loss of social position or any other penalty by non-observance of the practice, their prejudice cannot be strong, and I fancy they may be easily weaned from it.

7. A large portion of the European Community, I hear, are of opinion, that Inoculation, which has been productive of much mischief lately, should be put down at once by legislative enactment, and that the present calamity affords a reasonable pretext for doing so. I think the proper time, for such interference on the part of Government, has not arrived. The people must first be convinced of the superior advantages of Vaccination, and unless such conviction become general, any prohibitory order will be evaded.

8. The benefits of Vaccination do not appear to be so generally known as is desirable ; and I would beg, respectfully, to suggest that printed pamphlets in the Bengalee character be widely circulated, setting forth the good that has resulted in Europe by its general adoption. The Natives would then be prepared to give the subject proper consideration, and, I doubt not, in the course of a year or two, the old pernicious practice would, in a great measure, be abandoned, and Vaccination received in its stead.

*Apothy. E. George
to D. Stewart, Esq.,
M. D., dated 16th
May, 1850.*

9. Every facility should be afforded to those desirous of being vaccinated ; and, I think, if the number of Vaccine Depôts were increased during the *Bussunth* time, and conveniently situated, many would apply who are now deterred by distance from doing so.

I am, &c.,

(Signed) EDWARD GEORGE,
Apothecary, Park Street Dispensary.

CALCUTTA, }
16th May, 1850. }

ANSWERS to QUESTIONS at page xxvii, by BABOO RADHANAUTH
SICKDAR, enclosed with the above.

*Answers by Baboo
Radhanauth Sickdar.*

Answer 1st.—It is customary with the Hindoos in Calcutta, that when one person in a family is inoculated, all the others who had not been inoculated or who had not had the Smallpox before, are likewise inoculated at the same time. From this it would appear that the Hindoos are aware of the fact that Smallpox, produced by Inoculation, is a propagating disease. I am not aware of any deaths occurring from Inoculation.

Answer 2nd.—Baboo Radhanauth Sen had his three children vaccinated in the first instance. But this year he had them all inoculated from an impression that this was a safer procedure of the two. For a similar reason Baboo Gopeenauth Sen's two daughters who had been vaccinated before, have been inoculated this year. Baboo Hurro Chunder Ghose had a daughter of his vaccinated this year. Baboo Juggodishnauth Roy had likewise his two children vaccinated about three months ago. There is a respectable Brahmin family in Barranagar, who, I have just been told, introduced Vaccination into his family some forty-five years ago. I am not quite sure of this circumstance, but I could make enquiries, if required to do so.

*Answers by Baboo
Radhanauth Sirkdar.*

Answer 3rd.—I think that, barring a few Hindoo gentlemen, who are in intimate contact with the Europeans, and who know the advantages of Vaccination and encourage it partially, all the others of the Native community are in favour of Inoculation.

Answer 4th.—The impression on my mind is that Smallpox spreads by contagion, and that unlike other epidemics, it is not much affected by the healthy or unhealthy condition of the localities. I think that the only way in which a just opinion, on this subject, may be formed is by referring to the Register of Deaths kept in the Magistrate's Court, and ascertaining therefrom whether in healthy or in unhealthy localities, or whether equally in all, the Smallpox has been most prevalent this season.

I have heard that the Register of Deaths, above adverted to, is kept with care, which must, therefore, render it a trust-worthy document.

*Mr. G. Daly to D.
Stewart, Esq., M. D.,
dated 12th May, 1850.*

FROM MR. G. DALY,

*House Surgeon, Medical College Hospital,
and in charge of the Out-door Dispensary,*

TO D. STEWART, Esq., M. D.,

Secy. to the Smallpox Committee.

Dated 12th May, 1850.

SIR,

In reply to your Circular Letter of the 18th March, requesting information on certain points relative to the Smallpox epidemic, which has prevailed here with such unprecedented violence during the present season, I beg to offer such particulars as my limited means of observation enable me to supply.

2. The disease first made its appearance in this neighbourhood about the beginning of November, but was said to have been prevalent in the Native part of the town as early as October, having previously travelled through the Districts of Burdwan and Hooghly, and over a large tract of country to the eastward between Calcutta and Dacca.

3. The cases which occurred here in November were chiefly of the malignant and confluent form ; but the disease, at that time, was confined to individuals among the poorer class of Natives who were unprotected by any previous prophylactic. It soon, however, began to spread more generally through all ranks of the Native population, and in the early part of December made its appearance among the lower order of Christians

residing in Sibtollah, Colootollah, Mirzapore, Molunga, and the various lanes and gullies in the vicinity of Bow Bazar. Here also the attacks were, in the first instance, I believe, principally among children and young persons who had not been vaccinated, but subsequently, as the contagion increased and became established in these crowded and unhealthy localities, its ravages were extended to people of all ages and conditions in the immediate neighbourhood, and the old as well as the young, the rich and the poor, all alike fell victims to the irresistible violence of the disease. From December to the end of March, the pestilence continued to increase and extend its ravages on every side, but more especially throughout the Native part of the town, where its chief violence appears to have been expended. Towards the end of April, the epidemic began to decline, although, I believe, that cases of a severe form still frequently occur up to the present moment.

*Mr. G. Daly to D.
Stewart, Esq., M. D.,
dated 12th May, 1850.*

4. With regard to the origin and mode of diffusion of Smallpox this year, I think there can scarcely be any doubt that it was, in the first instance, of purely epidemic origin, and therefore entirely attributable to those unknown atmospheric causes which produce similar periodical visitations in every country, but more frequently in this. At the same time there can be as little doubt, I think, that the baneful practice of Inoculation has tended very much to extend and propagate the disease throughout the city this year. The *Ticcadars* do not usually commence their operations before the month of January, and as Smallpox had been very prevalent not only in Calcutta, but over many parts of Lower Bengal long before that time, I do not think they can be fairly charged with having in anyway helped to originate it; but I think, it is as certain that at a later period of the season they have been powerfully instrumental in propagating and extending it. I cannot say, with any certainty, at what time they first commenced their operations here this year, but I should imagine from the early appearance of the epidemic, that they were called into the field before the usual time. This much is certain, that when the alarm became general among the Native inhabitants, the services of the *Ticcadars* were in universal demand among them, and from that time to the present, I believe, they have been in constant employment.

5. Under such circumstances the result must necessarily have been to extend and propagate the Smallpox poison, very often, I doubt not, in its worst form; for even admitting that the *Ticcadars* could exercise discrimination in the selection of cases to obtain

*Mr. G. Daly to D.
Stewart, Esq., M. D.,
dated 12th May, 1850.*

their matter from, at a time when we know that a great proportion of those occurring spontaneously were of the confluent form, it is only reasonable to suppose that, practised on a wide extended scale, in such a densely crowded and populous city as Calcutta, Inoculation must, in very many instances, have been attended with the most fatal results, it being a well-known fact, that Variolous matter taken from one person with a modified form of the disease, may, and often does produce it in a confluent form in another. This has often happened here in ordinary seasons, and how much more likely to occur during the prevalence of a virulent epidemic when it requires but little of the exciting cause to induce the disease. The advocates for Smallpox Inoculation lay much stress upon the fact of the matter being always taken from the most favourable cases, and this they say, in general, produces only a mild disease ; but it must be evident that in spite of all such precaution, the most carefully selected Smallpox virus cannot, at *any time*, be used without danger of reproducing the disease in its worst form, and that every case so produced, whether more or less severe, must prove an additional nucleus for the wider dissemination of the infection in every place it is conveyed to. That such has been the case here this year to a great extent, I feel perfectly assured, although it is difficult to obtain any thing like a correct estimate of the mortality from this cause ; for such is the strange effect of long continued prejudice on the Native mind that they are, generally speaking, very unwilling to admit any thing to the disadvantage of their own practice ; but if I may judge from my own experience of the many children brought to this Dispensary suffering from the effects of induced Smallpox, with extensive suppuration of the joints, sloughing of the cornea, and all the other distressing sequelæ of the severer forms of the disease, I should say that the practice of Inoculation has been frequently attended with the most deplorable consequences.

6. On the question of the expediency of putting down the practice of Inoculation by legislative enactment, I am certainly of opinion that it is the only way in which the evil can be effectually remedied, and I think that the present time would be a most suitable occasion for the adoption of such a measure, inasmuch that the experience which the people have had of the evil effects of Inoculation, during the present season, would help materially to reconcile them to what, at any other time, they might perhaps be disposed to regard as an undue interference with a long established national custom. It would certainly be desirable, if they could be prevailed upon, to abandon the pernicious practice

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voluntarily and by persuasive means, as any sudden and forcible change, in a domestic habit of such long standing, must naturally be viewed by them at first, with some degree of dissatisfaction ; but clinging to their prejudices so tenaciously as they generally do, I fear there is no possibility of effecting so desirable an object in this way, and as the general safety of the community, at large, *imperatively* requires the effectual suppression of a practice so fraught with danger to the public health, I am fully of opinion that this can only be done in the way proposed.

7. I do not think that the Hindoo Community of Calcutta have any deeply grounded objection to Vaccination, for I have heard of several respectable families who have adopted it this year in compliance with the advice of their European Medical attendants. They are certainly all more or less prejudiced in favour of their own practice from long custom and habit, but nothing more. It is true that there are certain religious forms and ceremonies observed among the wealthier families on occasions of Inoculation being performed, in which some place great faith ; but the more intelligent class of Hindoos, I believe, dispense with these forms altogether, or regard them with indifference, and only object to Vaccination, because they say it affords no *certain* protection against Smallpox, which, they believe, can never be entirely eradicated ; whereas being once affected with the disease in a mild form, the person is considered safe from infection ever afterwards. Many respectable Hindoos who hold to this opinion at present would, I am convinced, become speedily reconciled to Vaccination if Inoculation was prohibited ; especially if the former was practised under careful European superintendence which would give them greater confidence in it. A considerable portion of the Hindoos, I believe, never have recourse to any prophylactic measures whatever, trusting to certain deities for an entire exemption from the disease, and the greater part of the poorer classes would, I am persuaded, willingly adopt Vaccination if it could always be made conveniently available to them. They only require to be saved the trouble of going far to seek it ; have, generally speaking, fewer prejudices against it, than the more wealthy portion of their countrymen ; and adhere to Inoculation without any other reason for the preference than habit alone. They cannot afford expensive ceremonies, and would, I believe, submit to be saved the *Ticcadars'* fees without the slightest murmur.

8. Viewing all these facts, I have no hesitation in declaring it as my firm opinion and belief, that Vaccination might be substituted for Inoculation with every prospect of its general adoption eventually,

Mr. G. Daly to D. Stewart, Esq., M. D., dated 12th May, 1850.

if the latter were effectually suppressed by legislative enactment, which I consider not only most expedient but perfectly feasible, and not likely to interfere seriously with any religious custom or belief of the people. It cannot, of course, be expected that such a measure will be received at first by the more orthodox Hindoos without some slight show of opposition, but even with them the most prejudiced must see that as a purely sanatory measure it is dictated solely by a humane and benevolent desire to protect the community at large, and save it, if possible, from the horrors of such a fearful visitation as we have experienced this year ; and I therefore do not think there can be any reasonable grounds to apprehend, that the change will be productive of more than a little temporary discontent among those who, from prejudice and long habit, may be most opposed to it.

9. In the Appendix will be found the replies of several of the most intelligent and respectable Natives residing in this part of the town, to the Queries circulated with your letter, and their remarks may be considered to represent the opinions of a very large and influential class of the Hindoo community of Calcutta.

10. I beg to subjoin a Return of Vaccination, embracing all the operations performed in connection with this Dispensary during the last 18 months. In this period there have been two Native Vaccinators from the Superintendent General's Department regularly employed, and the total number of successful operations has been as follows. Christians 153, Mahomedans 275, and Hindoos 337, mostly all the children of people living in this neighbourhood. A very large proportion of the Natives, both Hindoos and Mahomedans, have attended, of their own accord, without any other seeming inducement than a perfect belief in the efficacy and greater benefit of Vaccination. Generally speaking, we have not found it difficult to get the poorer class of people to bring their children to the Dispensary. Those living at a distance dislike the trouble of attending often for inspection on account of its interfering with their domestic avocations, but this difficulty has been, in a great measure, overcome since the grant of a small donation to the parents has been sanctioned by Government, and I have no doubt, that the encouragement thus held out to them to resort to our Dispensaries for Vaccination, will, in the course of a little time, be attended with the happiest results.

11. It would be desirable, however, if the operations of our Vaccinators could be limited to the period extending from October to

March, as both Natives and Europeans have no objection to their children being vaccinated during the hot season ; and it must be admitted that the objection is not without some shew of reason, as I believe it is now generally considered that the cold weather is the most fitting, if not the only fit time, for the operation ; and I am quite of this opinion myself, having frequently had occasion to observe irregularities in the progress and development of the Vaccine Vesicle, which rendered the operation much less satisfactory than could be desired, owing, in a great measure no doubt, to the languid state of health of most children during the hot season of the year.

*Mr. G. Daly to D.
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12. It would also be desirable that every case of Vaccination should be brought for inspection to some convenient quarter of the town, as the Native Vaccinators, in their anxiety to enhance their services by reporting as large a number of cases as possible, are not always sufficiently careful in the selection of healthy and proper subjects ; nor do I think they are always sufficiently well skilled to be able to distinguish the doubtful forms of Vesicle ; and therefore, if not vigilantly watched, and their operations kept constantly under European surveillance and control, their failures are most likely to be overlooked, and lymph of a bad quality circulated to the great discredit of Vaccination.

13. With a view to obviate the chances of failure as much as possible where competent supervision cannot be obtained, I would, respectfully, beg to suggest the formation of a class at the principal Dépôt in Calcutta, as well as in all the Stations of the Mofussil, where candidates for employment could be carefully instructed, so as to form a body of trustworthy and efficient Vaccinators that might be always available for the public service in every part of India.

I have the honor to be, &c.,

(Signed) GEORGE DALY,
*House Surgeon,
In charge of Out-door Dispensary,
Medical College Hospital.*

CALCUTTA, }
12th May, 1850. }

Mr. G. Daly to D. Stewart, Esq., M. D., dated 12th May, 1850. **TABULAR RETURN of VACCINATION at the Out-door Dispensary of the Medical College, from November 1848 to the end of April 1850.**

Dates.	Vaccinated at their homes and brought for inspection to the Dispensary on the 8th day.			Vaccinated at the Dispensary.			Total Number Vaccinated.			Grand Total.
	Christians.	Mahomedans.	Hindoos.	Christians.	Mahomedans.	Hindoos.	Christians.	Mahomedans.	Hindoos.	
1848.										
November,...	1	4	15	0	0	4	1	4	19	24
December,...	5	13	28	14	12	3	19	25	31	75
1849.										
January, ...	3	8	24	5	14	10	8	22	44	74
February, ...	5	10	12	8	8	4	13	18	16	47
March,	2	11	6	10	2	2	12	13	8	33
April,	4	8	5	1	1	0	5	9	5	19
May,	1	10	16	0	0	0	1	10	16	27
June,	3	14	16	0	0	0	2	14	16	32
July,	2	18	11	0	0	0	3	18	11	32
August,	3	12	18	0	0	0	2	12	18	32
September,...	2	8	19	0	0	0	5	8	19	32
October,	5	17	10	4	2	0	9	19	10	38
November,...	5	17	7	0	0	0	1	17	7	25
December, ...	1	15	16	2	4	5	4	19	21	44
1850.										
January,	2	14	14	28	2	1	35	16	15	66
February, ...	7	7	15	14	16	16	21	23	31	75
March,	7	12	15	6	6	14	9	18	29	56
April,	3	9	15	0	1	6	3	10	21	34
Total,	61	207	272	92	68	65	153	275	337	765

(Signed) **GEORGE DALY,**
House Surgeon,
In charge of Out-door Dispensary,
Medical College.

ANSWERS to QUESTIONS at page xxvii, by BABOO PROSONO COOMAR MITTER, *House Surgeon, Female Hospital, Medical College.*

THROUGH MR. GEORGE DALY.

Answers to Questions by Baboo Prosono Coomar Mitter, through Mr. George Daly.

Answer 1st.—I know several instances where *Ticcadars*, by inoculating children in a family, have induced Smallpox in such a virulent form as not only to cause death, but also to spread the infection through other families in the neighbourhood.

Answer 2nd.—I know several respectable Hindoo families as well as Mahomedans who have adopted Vaccination in place of Inoculation at the recommendation of their medical advisers. Some, I know, doubt very much its efficacy to secure the system completely from the casual inroads of Smallpox, especially when it rages as an epidemic in a virulent form, and therefore adhere to the old practice of Inoculation. The following are the names of some of the Hindoo families in Calcutta who have adopted Vaccination.

Baboo Hemnauth Roy,	Baboo Gobinchundo Bose,
„ Kistomohun Sing,	„ Bany Madub Kerr,
„ Sibchunder Mookerjee,	„ Cally Nath Mitter,
„ Nilcomar Bannerjee,	„ Kissory Mohun Mookerjee,
„ Bostomchurn Ghose,	Raja Jadub Kissen Bahadoor,
„ Rammohun Ghose,	Baboo Nundoo Comar Kasdor,
„ Hurrischundo Singh,	„ Nilmadub Lall and several
„ Gooroochurn Sen,	others.
„ Gooroochund Chatterjee,	

Answer 3rd.—There are very many who still prefer the old practice of Inoculation owing to the long established prejudices which Hindooism has so deeply impressed on the minds of its votaries for centuries. To adore and worship *Situla*, as the great deity who presides over Smallpox, is still the practice with many Hindoos in spite of the rapid advance of education and enlightenment among the inhabitants of the metropolis, and this superstitious belief in the power of *Situla* is the reason why they adhere to the practice of Inoculation. To attempt to enumerate their names would be useless, as, I am sorry to say, their name is “Legion.”

Answer 4th.—From my experience of the mode in which Smallpox is propagated in Calcutta, I am satisfied that next to epidemic influence, Inoculation is the chief cause which tends to spread it, by conveying the matter from one family to another, and forming a new focus, in every house for the contagion to spread from.

(Signed) PROSONO COOMAR MITTER.

*Answers to Questions
by Baboo Ramchurn
Mullick, through Mr.
George Daly.*

ANSWERS to QUESTIONS at page xxvii, by BABOO RAMCHURN
MULLICK, *Puttuldungah.*

THROUGH MR. GEORGE DALY.

Answer 1st.—The practice invariably observed by Hindoo families is to have all their children inoculated by *Ticcadars* simultaneously, and it seldom happens that in ordinary seasons death ensues from Smallpox induced by Inoculation which generally produces it if at all, in a mild form. I have heard of instances this season, of death from Smallpox caused by Inoculation, in a family where the disease had appeared spontaneously ; and there is no doubt that Inoculation spreads the disease from one family to other families living in adjoining houses.

Answer 2nd.—I have known very few families in Calcutta resorting to Vaccination, and it is only in the present season some few have, at the recommendation of their medical advisers, tried Vaccination, in which, however, it is likely they have not much faith from a conviction of its being no protection against Smallpox.

Answer 3rd.—Generally speaking, I should think, that almost all the respectable families in Calcutta are in favour of Inoculation.

Answer 4th.—I can assign no ostensible cause for the spreading of Smallpox. All that I can say is, that it visits these lands in a rigorous form and becomes epidemic at intervals of 10 or 12 years. Like other virulent diseases, it is more probable, in my humble opinion, that it proceeds from atmospheric causes, rather than Inoculation as some imagine, for Inoculation is practised by families every year at the beginning of spring, and it does not follow that it conduces to the general dissemination of Smallpox as often. I know it to be the fact, that our countrymen are prejudiced against Vaccination from an impression that it is no preventive of Smallpox. I know also that the result of Inoculation much depends upon the nature of the matter selected from natural Smallpox, which, when used for Inoculation, produces pustules in a rather malignant form if it be gathered from an indifferent subject.

In a religious point of view, I do not think there would be any material objection on the part of the Hindoo community of Calcutta, particularly, to use Vaccination. They have great faith in certain religious observances practised in families when Inoculation is performed, or when Smallpox appears among them spontaneously. But as I have already observed, there will always be a strong prejudice against Vaccination, because it affords no *sure* protection from Smallpox ; for the belief which universally prevails among us is, that once being affected

by the disease in a mild form, the person is safe for ever ; and with this view, to incite Smallpox in a gentle form, Inoculation is resorted to as the surest protectionary measure.

Inoculation does tend to spread the Smallpox, but the disease often makes its appearance in a season distant from that when Inoculation is in use ; for instance this year, Inoculation is practised in the spring, whereas the present epidemic broke out as early as September. As to the best mode for getting the people to try Vaccination in place of Inoculation, I would recommend a persuasive rather than a coercive measure, as any change made by the power of legislation will not only offend, but increase their prejudice in favour of Inoculation ; and it is not unlikely that it will still be resorted to clandestinely, if not in the town, at least out of it, as was the case, I hear, some 45 years ago, when the most stringent measures were adopted by the Police for restraining Inoculation in this city during a fearful season of epidemic Smallpox.

(Signed) RAMCHURN MULLICK.

*Answers to Questions
by Baboo Ramchurn
Mullick, through Mr.
George Daly.*

REPLIES to QUESTIONS at page xxvii, by BABOO RAMCHUNDER
MULLICK, *Chore Bagaun*.
THROUGH MR. GEORGE DALY.

*Replies to Questions
by Baboo Ramchunder
Mullick, through Mr.
George Daly.*

Answer 1st.—I cannot state from my own personal knowledge, but have heard of more than one instance in which *Ticcadars* have introduced Smallpox into a family by inoculating one of its members, which has ended in the death of the person inoculated. In other instances it has communicated itself to other members of the same family, but not fatally.

Answer 2nd.—There are several respectable Hindoo families in Calcutta, who have entirely done away with the practice of Inoculating, and adopted Vaccination, from a full belief of its efficacy and its alleged superiority over the former. As far as my own information extends, several have introduced Vaccination into their families, and I could name many more if I were allowed time to enquire.

With regard to the reasons why the Hindoos object to Vaccination and give preference to the old system, I beg to observe, first, that the Hindoos are naturally averse to all innovations which they look upon with horror, particularly where their religious feelings and religious prejudices are in danger of being sacrificed ; secondly, that they are impressed with

*Replies to Questions,
by Baboo Ramchunder
Mullick, through Mr.
George Daly.*

a belief that the *Bussunt* or Smallpox is above all medical cure, (the Native medical works prescribe no remedy for it), and that a patient is entirely at the mercy of *Situla*, (the goddess of Smallpox), whom they consider it their duty to propitiate by worship and various offerings, the *Ticcadars* acting in the capacity both of Doctors and Priests on such occasions. Vaccination being a foreign system cannot, in their opinion, be acceptable to *Situla*.

It is worthy of remark that people in the Mofussil, generally, are quite ignorant of the comparative advantages or disadvantages of the two systems. There are localities in the interior where Vaccination has not been heard of.

I beg to remark that none of the Sanscrit medical works treat of Vaccination, and nothing is therefore either sanctioned or forbidden with respect to it. I am not aware of any religious authority which condemns the external application of the cow matter to the human body, such as is required by Vaccination.

Answer 3rd.—The great majority of the Hindoo community, particularly the most orthodox portion of it, strictly adhere to the practice of Inoculation. Among the most respectable and opulent families in Calcutta may be named, Baboos Praunkissen Mullick, Rajindro Mullick, Goolbeharry Mullick, and almost all the Mullick families. Baboos Anundnarain Ghose, Ashootos Dey, &c.

Answer 4th.—It would be difficult to ascertain the chief causes of the spread of Smallpox, but they may be ascribed, like most other diseases which prevail among the people, to irregularity in the mode of their living, to their physical exposure to the weather, and perhaps to the unscrupulous way in which they allow themselves to be brought in constant contact with people afflicted with Smallpox, either spontaneous or brought on by Inoculation, as they touch and mix themselves with their friends and relatives so afflicted, most freely, relying most implicitly on the belief that the Inoculation they have undergone is enough to ward off the effects of contagion. I cannot help recording my strong belief that the disease has broken out and caused more deaths in families, where neither the one practice nor the other prevails, than where Inoculation is practised. I know *Ticcadars* have been busily employed in inoculating during the late prevalence of the Smallpox, but not in the early part of it.

In conclusion, I think the gradual substitution of Vaccination for Inoculation would not be difficult, but it will be a work of time; and

the best means of getting the Natives to adopt it would be to convince them of its decided superiority over their own system, an object which could only be gained by establishing Vaccination Hospitals or Depôts in the Native parts of the town as well as in the Mofussil on an extended scale. Those who reject Vaccination, firmly and sincerely believe that Inoculation is the best and the only antidote against the attack of Smallpox. The Hindoo women in particular are great and staunch advocates of Inoculation, and cry down Vaccination as a mere mockery. The necessity of its repetition, in their opinion, is considered a sufficient proof of its incapability of producing on the human frame the effect wished for, and I think their religious prejudices would most assuredly be offended if the practice of the *Ticcadars* was prohibited by legislative enactment. The adoption of any compulsory measure to put down any thing which is sanctioned by religion and custom, especially where life and death are concerned, and which is considered by them the best and safest of the two systems, would be injudicious and calculated not only to engender a feeling of dissatisfaction, but to injure the cause which it was intended to promote.

(Signed) RAMCHUNDER MULLICK.

FROM MR. G. R. NAYLOR, *Sub-Assistant Surgeon,*
In charge of the Gurranhatta Dispensary,
 TO D. STEWART, Esq., M. D.,
Secretary Smallpox Committee.

*Replies to Questions
 by Baboo Ramchunder
 Mullick, through Mr.
 George Daly.*

*Mr. G. R. Naylor,
 to D. Stewart, Esq.,
 M. D., dated 15th
 April, 1850.*

SIR,

In compliance with the instructions conveyed in your Circular dated March 18th, last, I have the honor to lay before you the following facts and information respecting the recent epidemic of Smallpox which the nature of my duties at the Dispensary have brought to my notice, together with such opinions and conclusions as my experience, ample opportunities of observing, and careful enquiry have enabled me to form.

I feel confident in asserting that the practice of Inoculation is one of the principal causes of the great ravages lately committed by the disease, and that it has been the chief means of diffusing the contagion throughout the whole of the Native part of the town, to such an extent, that there has scarcely been a house left untouched during the recent epidemic.

In this neighbourhood the proportion that Smallpox induced by Inoculation, has borne to the spontaneous cases has been at least as twenty

Mr. G. R. Naylor,
to D. Stewart, Esq.,
M. D., dated 15th
April, 1850.

to one, taking the aggregate number from the commencement or one epidemic to the present time, and the fatality of the induced form has been far from inconsiderable, while the sequelæ have always been the most distressing.

When this epidemic first displayed itself, and only a few cases were seen here and there, the *Ticcadars* were actively engaged in taking the virus and inoculating the unprotected on all sides, till they diffused the contagion so fearfully that every house almost has had some cases of Smallpox either spontaneous or induced.

Smallpox displays itself more or less every year, and hence has been derived the term "*Bussunt Kal*" applied to the spring season ; but its characters differ, depending on some unknown atmospheric influence. Whenever it shows the least tendency to be of a virulent form, it is then that the *Ticcadars* make a rich harvest, and by Inoculation render such an epidemic still more severe. When, on the other hand, it assumes a mild form the Natives are careless and will not submit to Inoculation, but defer it to the next year.

The practice of Inoculation is not confined to the Hindoos alone, but also prevails among the Mahomedans in town, many of whom are the domestic servants of the Christian community, and thus (generally) by the unavoidable intercourse is the contagion first diffused among Christians.

With regard to the expediency of putting down the practice of Inoculation by legislative enactment, I humbly beg to submit it as my firm belief that nothing short of such a step, on the part of Government, would have the desired effect.

A number of the respectable Hindoos who were formerly prejudiced against Vaccination seem now somewhat desirous of introducing it in their families and of doing away with Inoculation, nay a few have already commenced the change. Such unfortunately is not the case with the majority, nor with the poorer and uneducated classes, and especially the villagers, either Hindoos or Mahomedans, who look upon the *Ticcadars* as oracles and will submit to any thing they do or advise.

Among the Hindoos there may be distinguished three classes ; the first, (comprising the greatest number chiefly of the respectable portion,) use Inoculation considering it to be an infallible protective against spontaneous Smallpox. They object to Vaccination chiefly because they believe it to possess little or no prophylactic virtue, and also because the matter is taken from the cow. The latter objection is, in a great measure, wearing off among the educated Hindoos who say there is no mention regarding Vaccination

in the Shasters, and therefore that it is not directly prohibited. They adhere to Inoculation chiefly from a want of faith in the protective power of Vaccination, and also because Inoculation has been a long standing practice among them, and has seldom, they say, proved fatal when carefully performed, attributing all the fatal cases to neglect and the use of bad virus, *i. e.*, virus taken from a confluent case ; they admit, however, that Inoculation diffuses the contagion of Smallpox, and that its sequelæ are very distressing.

*Mr. G. R. Naylor to
D. Stewart, Esq., M.
D. dated 15th April,
1850.*

A second class among the Hindoos consists of those who neither use Inoculation nor Vaccination, but remain altogether unprotected believing that the blessing of the Deity of Smallpox, "*Situla Mai*," is upon their families, and that they always have the disease in a benign form. There are not many of the respectable portion in this class, but a great number of the lower orders and villagers belong to it. The *Ticcadars* never propose Inoculation to these, for they can always make more by them when they get a spontaneous attack, which they can seldom escape during a severe epidemic.

The third class comprises some of the respectable families who use Vaccination, and all those among the villages whom the Native Vaccinators can prevail upon to submit to the operation.

The effects of Vaccination on the Christian community, although decidedly beneficial, could, I am firmly persuaded, be rendered more so by greater attention on the parts of the Vaccinators and the vaccinated. Those who now have the benefit of a family physician derive the advantage of his care and inspection, but others, the greater number, depend only on the Native Vaccinators, and many of the cases are thus quite unsuccessful and unsatisfactory.

Among the Natives, both Hindoo and Mahomedan, our Vaccinators have been hitherto obliged to go about in the villages, and vaccinate those only who could be induced to submit to the operation. They have thus, in order to keep up a supply of virus, been as it were necessitated to vaccinate children and adults in all states of health ; owing to which and also to a want of proper inspection as to the success of the operation, many of the cases have been complete failures, and thus, no protective power being in the system such people have been affected with Smallpox during an epidemic, and Vaccination has suffered in the opinion of the people.

I have the honor, &c. &c.

CALCUTTA,
15th April, 1850. }

(Signed) G. R. NAYLOR.

*Dr. A. Chalmers
to D. Stewart, Esq.,
dated 17th April, 1850.*

FROM DR. A. CHALMERS,

Presidency Surgeon,

TO D. STEWART, Esq.,

Supdt. Genl. of Vaccination and Secy. Smallpox Committee.

Dated 17th April, 1850.

SIR,

With reference to your Circular of the 18th of March last, on the subject of the epidemic Smallpox, I have much pleasure in forwarding to you such information as I have been able to collect, touching the different questions which accompanied your letter, and which information, I beg you will do me the favour of laying before the Committee appointed by Government to enquire into the cause, prevalence and great mortality of the above disease.

I have the honor to be, &c.,

(Signed) A. CHALMERS, M. D.,

Presidency Surgeon and Supdt. Chitpore Dispensary.

CALCUTTA,
17th April, 1850. }

*Mr. M. R. Crawford
to A. Chalmers,
Esq., M. D., dated
12th April, 1850.*

FROM MR. M. R. CRAWFORD,

Apothecary, Chitpore Dispensary,

TO A. CHALMERS, Esq., M. D.,

Presidency Surgeon.

Dated 12th April, 1850.

SIR,

I have much pleasure in returning Dr. D. Stewart's letter, and the questions that accompanied.

I beg leave to forward you the answers and opinion of four respectable Hindoo gentlemen who reside at Chitpore, Cossipore and Barnagore.

I could not obtain further information, than the subjoined list will shew, of the number of *Ticcadars* at work for the last 3 or 4 instead of 18 or 12 months.

RETURN shewing the number of *Ticcadars* who go about Chitpore, Cossipore and Barnagore inoculating, also the number inoculated, cured and died, since the 1st January, 1850.

Mr. M. R. Crawford to A. Chalmers, Esq., M. D., dated 12th April, 1850.

Names of <i>Ticcadars</i> .	No. Inoculated.	No. Cured.	No. Died.	Remarks.
Ram Coomar Banerjee,...	29	29	0	This list I received from the Chitpore Thanah, but I fear very little reliance can be placed on the correctness of the Statements as it appears they were taken from the individual <i>Ticcadars</i> themselves.
Ram Chunder Tagore, ...	3	3	0	
Nobo Coomaur Ghosaul, ..	80	75	5	
Ramkisto Chuckerbuttee, ..	22	22	0	
Kartick Chuckerbuttee, ...	0	0	0	
	134	129	5	

A patient named Rohumally, who brought one of his children to the Dispensary for treatment of ulcerated cornea after Smallpox, stated to me that 5 children had been inoculated in his house, when 3 of the children had taken the Smallpox and died from the effects, and moreover, that the *Ticcadars* never once called to see the children, after they had been inoculated. I am given to understand from several of the Natives, residing in the abovementioned places, that several people have died of Smallpox, by the disease being introduced into families by *Ticcadars*. There are some who have a religious antipathy to Vaccination, for they say "the pus or matter is taken from the cow," and that their Shasters strictly prohibit them to make use of it, but that Inoculation has continued from time immemorial, and had been continued by their ancestors.

There are no records of mortality kept, either at the Thanah or any of the Ghâts, so that no information can be obtained from any of these places. In my humble opinion I think it very essential that some such sort of record should be kept by the Police Thanah at Chitpore, and that a weekly or monthly Report should be sent by the Daroga to the Chitpore Dispensary, and to be there filed as a public document, for future reference. An order to that effect should be passed by the Magistrate of the 24-Pergunnahs at Allipore.

Mr. M. R. Crawford to A. Chalmers, Esq., M. D., dated 12th April, 1850.

RETURN shewing the number of Vaccinators attached to the Chitpore Dispensary, as also the number vaccinated in each Month, commencing from 1st January 1845 to 31st March 1850.

Months.	1845.		1846.		1847.		1848.		1849.		1850.		Remarks.
	No. of Vaccinators.	No. Vaccinated.	No. of Vaccinators.	No. Vaccinated.	No. of Vaccinators.	No. Vaccinated.	No. of Vaccinators.	No. Vaccinated.	No. of Vaccinators.	No. Vaccinated.	No. of Vaccinators.	No. Vaccinated.	
January,	3	262	3	245	3	289	3	297	3	122	3	151	Total Vaccinated 11256.
February,	3	284	3	267	3	314	3	317	2	130	3	162	
March,	3	364	3	350	3	321	3	288	2	90	3	163	
April,	3	137	3	208	3	249	3	180	2	57			
May,	3	172	3	194	3	236	3	165	2	52			
June,	3	148	3	170	3	133	3	148	2	64			
July,	3	140	3	184	3	195	3	126	2	68			
August,	3	159	3	208	3	200	3	153	2	74			
September,	3	141	3	154	3	150	3	108	2	45			
October,	3	159	3	185	3	166	3	126	2	73			
November,	3	204	3	172	3	172	3	134	2	75			
December,	3	239	3	280	3	230	3	117	2	80			
		2409		2617		2655		2169		930		476	

The above cases have been vaccinated at the Chitpore Dispensary voluntarily and have proved successful, (from the intelligence I have received) and that there has not been a single death among them from Smallpox.

In conclusion, I hope that this will prove satisfactory to self, Dr. Stewart, and the other gentlemen composing the Committee.

Yours, &c. &c.

(Signed) M. R. CRAWFORD.

CHITPORE DISPENSARY, }
12th April, 1850. }

Replies to Questions
by Baboo Prankissen
Mookerjee.

REPLIES to QUESTIONS at page xxvii, by BABOO PRANKISSEN
MOOKERJEE.

Answer 1st.—I know of no instance in which the disease has been propagated by means of Inoculation.

Answer 2nd.—I do not know any respectable Hindoo families in Calcutta, with the exception of a few Young Bengals and some of the

Tagore families preferring Vaccination to Inoculation, but on the other hand, I can affirm that Inoculation is the general practice amongst all the respectable Hindoos.

Answer 3rd.—In reply to this query I have to state, that Baboos Aushootos Dey, Muttyloll Seal, Prawnkissen Mullick, Goorooopersaud Bose and several others, like and use Inoculation and not Vaccination.

Answer 4th.—Smallpox, like cholera, is a periodical disease, which makes its appearance at the change of seasons, and its propagation is not attributable to Inoculation.

(Signed) PRANKISSEN MOOKERJEE.

*Replies to Questions
by Baboo Prankissen
Mookerjee.*

REPLIES to QUESTIONS at page xxvii, by BABOO BYKANATH
CHOWDREE.

*Replies to Questions
by Baboo Bykanath
Chowdree.*

Answer 1st.—I do not know, but from experience I can say, that the baneful effect of the Smallpox is not produced by a *Ticcadar* in Inoculation. Numbers are taken off by the disease, which attacks itself, and the infection is promulgated in certain localities.

Answer 2nd.—Partially.

Answer 3rd.—Partially.

Answer 4th.—No, but by the Smallpox which attacks itself.

ANSWERS to QUESTIONS at page xxvii, by BABOO ISSURCHUNDER
SINGH.

*Answers to Questions
by Baboo Issur-
chunder Singh.*

Answer 1st.—To say nothing of other instances of the kind above alluded to, I know the poison propagating itself and producing death in my own family, a few days after its introduction by a *Ticcadar*. There were three individuals attacked by the Smallpox at the same time, of whom one recovered and two died.

Answer 2nd.—Among the other Hindoo families, in Calcutta, who have adopted and encouraged Vaccination, and discouraged Inoculation, to my knowledge I may mention, Rasmonee Dossee of Jaun Bazar, the Singh family of Jorasanko, Debnarain Day of Entally, Sumbhoo-nath Chatterjea of Bow Bazar, Nilcomul Banerjea, Banian to Messrs. Jardine Skinner and Co., and Tareeny Churn Banorjee, one of the Municipal Commissioners. But if I am to rely upon the testimony of respectable and creditable witnesses, there are hundreds of individuals of every rank in Calcutta, who have introduced Vaccination into their families in preference to Inoculation during the present epidemic.

Answers to Questions by Baboo Issur-chunder Singh.

Answer 3rd.—I believe the majority of people in Calcutta are still against Vaccination, and that in most cases in conformity with their religious prejudices. But as a direct reply to the query, I may name Baboo Doorgachurn Dutt of Bow Bazar, who discourages Vaccination and prefers the practice of Inoculating.

Answer 4th.—As far as I am able to judge, the chief exciting cause which tends to set up Smallpox among the Hindoos of Calcutta, is the practice of Inoculation. This impregnates the atmosphere with the poisonous exhalations from the bodies of the inoculated, and thus brings the disease home to the people, already so liable to it by the peculiar defects in the sanitary condition of the town. Suppose Smallpox arose *sui generis* in Calcutta, it must have had a powerful auxiliary to back its progress in the practice of Inoculating, which the people resorted to on the outbreak of the epidemic. Besides I am of opinion, that the mode in which the Natives carry those who die of the Smallpox to their usual destination, contributes not a little to the propagation of the disease. In fact, I am firmly convinced, that the practice of Inoculating may protect *individuals* from the attack of Smallpox, but is fraught with positive harm to the community at large.

(Signed) ISSURCHUNDER SINGH.

PACKPARRAH, }
5th April, 1850. }

Baboo Comar Kallykishun Roy to M. R. Crawford, Esq., dated 9th April, 1850.

FROM BABOO COMAR KALLYKISHUN ROY,
TO M. R. CRAWFORD, Esq.,
Chitpore Dispensary.

Dated 9th April, 1850.

SIR,

Agreeably to your request, I beg to forward you the following Answers to the four proposed Questions that were sent to me.

Answer 1st.—I know many instances of the disease being introduced into families by *Ticcadars*, and deaths have ensued.

Answer 2nd.—There are many respectable Hindoo families who prefer Vaccination to Inoculation, and have introduced the same into their own families.

Answer 3rd.—There are many respectable families who prefer the old system of Inoculation and discourage Vaccination. I may mention, for instance, Baboo Prannath Chowdry and several others.

Answer 4th.—I am of opinion that Inoculation is the general cause of the promulgation of the disease in Calcutta and in its environs, besides which the *carrying* of the dead bodies through the public thoroughfares, may, in a great measure, maintain and promulgate the disease in different localities.

Baboo Comar Kallykishun Roy to M. R. Cranford, Esq., dated 9th April, 1850.

I remain, yours, &c.,

COSSIPORE, } (Signed) COMAR KALLYKISHUN ROY.
9th April, 1850. }

FROM DR. J. GRANT of *Dum-Dum*,

Surgeon, 3rd Battalion Artillery,

Dated 19th April, 1850,

TO D. STEWART, Esq., M. D.,

Superintendent General of Vaccination, Calcutta.

Dr. J. Grant to D. Stewart, Esq., M. D., dated 19th April, 1850.

DEAR SIR,

I have the pleasure to acknowledge your Circular requiring a Report on the Smallpox in this district. I regret that I am quite unable to furnish the information that is required, as my duties are exclusively with the Europeans of the Artillery Regiment, who, with the exception of a single mild case, have been quite free from the disease. If I had possessed the means of obtaining any knowledge on the points necessary, I should have been most happy to have afforded it to the Committee.

I have the honor to be, &c.,

DUM-DUM, } (Signed) J. GRANT,
19th April, 1850. } *Surgeon, 3rd Battalion Artillery.*

FROM DR. C. MACKINNON of *Dum-Dum*,

Surgeon, 9th Battalion Artillery,

Dated 13th April, 1850,

TO D. STEWART, Esq., M. D.,

*Superintendent General of Vaccination,
and Secretary Smallpox Committee, Calcutta.*

Dr. C. Mackinnon to D. Stewart, Esq., M. D., dated 13th April, 1850.

SIR,

I have the honor to acknowledge the receipt of your Circular letter of the 18th March, 1850, requiring such information as it may be in my power to offer in aid of the enquiry into the extent of the recent ravages of Smallpox among the Native population residing at, and in the neighbourhood of Dum-Dum.

Dr. C. Mackinnon
to *D. Stewart, Esq.*,
M. D., dated 13th
April, 1850.

2. I would, in the first instance, briefly refer to the existence of varioloid disease, so far as my own experience and enquiries can enable me to speak among the Native community adjoining this station. The two principal stations being Solooah and Ittalgacha, situated north and east, both being populous, being well situated, in elevated positions and exempt in a considerable degree from inundations during the rains, and therefore considered (according to experience of the general salubrity) to be healthy.

3. So far as can be ascertained from persons residing in the locality, the Smallpox first shewed itself in Ittalgacha in January last, and in Solooah in February. The total number that have suffered from the disease amounting, as nearly as can be computed, to two hundred adults and seventy children of various ages; from which it appears, beyond doubt, that it had been chiefly confined to adult persons. The extent of mortality is stated to be 21, in the whole number of 270; and from information collected on the spot it would appear that among 150 Hindoos, 18 deaths occurred, and that in 50 Mahomedans attacked with the disease only 3 deaths followed, presenting a double ratio in the former.

4. In regard to the number of *Ticcadars* employed in this vicinity, no precise information can be gained, but several have been active in their vocation for some months past in the above named villages, as well as in others of smaller populations; and from enquiry amongst Natives of intelligence whose families have suffered from the disease it would appear that fatal results have happened in few instances only of direct Inoculations, and that cases of this disease, thus propagated, have not been marked by any excess of mortality.

5. In the more immediate vicinity of this station the Smallpox has prevailed principally among the Hindoo population for 4 months past, and the casualties have been mostly in adult subjects; but in reference to the opinions of several intelligent Natives as to the occasional propagation of the disease from Inoculation, I would beg to offer my own experience, that virulent cases do frequently result.

6. Notwithstanding the prevalence of Smallpox among the Native population, it may be said scarcely to have entered within the precincts of this cantonment; only a few cases have come under my personal observation and treatment, though all have proved to be of confluent character, and one terminated fatally.

7. By more extended enquiry at the Civil Station of Baraset, I find that a *Ticcadar* has resided in that vicinity for several months past, and had

operated on numerous children in the surrounding villages, and according to the testimony of a respectable Native, (the Darogah of the Jail), the belief is nearly general that Inoculation is a means of exemption from the more dangerous form of disease, and that during the Epidemic the casualties were greatly more numerous among cases of natural Smallpox, and that the victims had been chiefly confined to adults.

This person also stated that he had his own two children vaccinated in the first instance, which having proved unsuccessful, he had in consequence resorted to Inoculation, as the means of averting the natural invasion of the Epidemic, and the probable severe consequences; that the prejudice amongst more intelligent Natives to Vaccination is considerably abated; and though I am not acquainted with any member of rank of the Hindoo community, from whom any specific information, as contemplated in the Circular which accompanies your letter, can be obtained, I have, by enquiry from others of respectability and intelligence, satisfied my own mind that the practice of Inoculation by *Ticcadars* is favourably regarded by the greater portion of the inhabitants, that numerous instances of propagation of the disease by this means have occurred during the late visitation, and that the not unfrequent failure of Vaccination is regarded as a serious impediment to its being generally adopted by the community: the liability to degeneration of the Cowpox must operate in diminishing the confidence they would otherwise entertain of its efficiency as a prophylactic measure.

I would beg to submit my opinion, such being understood as required by the Special Committee, that the prohibition of Inoculation by *Ticcadars* would be attended with highly beneficial results.

I have the honor to be, &c.,

(Signed) C. MACKINNON,
Surgeon, 9th Battalion Artillery.

DUM-DUM, }
13th April, 1850. }

FROM DR. A. J. SHERIDAN, *Civil Surgeon of Serampore,*
TO DUNCAN STEWART, Esq., M. D.,

Supdt. General of Vaccination.

Dated 21st June, 1850.

Dr. A. J. Sheridan,
of Serampore, to Dun-
can Stewart, Esq., M.
D., dated 21st June,
1850.

SIR,

I have the honor to acknowledge the receipt of your Circular letter dated 18th March 1850, and to apologize for having so long

Dr. A. J. Sheridan,
of Serampore, to Dun-
can Stewart, Esq., M.
D., dated 21st June,
 1850.

withheld a reply, but I found it difficult to obtain information on some of the points referred to, without which my Report, imperfect as it is, would have been utterly useless. I have now the pleasure to submit the result of my enquiries.

2. *Origin, extent and diffusion of the disease of Smallpox* throughout the town and district of Serampore.

It is supposed to have been brought from Calcutta about the latter end of November or beginning of December last, and began to prevail epidemically about February. To the operations of the *Ticcadars* from this date may be attributed the rapid increase and extension, as well as the malignancy and mortality of the disease. I am credibly informed that the *Ticcadars* and others used infection in some instances taken from subjects who subsequently died of the most malignant form of the disease, and in many cases within 6 or 7 days, or even earlier, after the operation of Inoculation. The exact amount of mortality I have not been able to ascertain, but should suppose it to have exceeded 400 throughout the district; one *Ticcadar* alone admits that he inoculated 400, and that 200 of the number died. The *ghaut returns*, obtained from the Police Darogah of the town of Serampore, give 134 deaths from January to May inclusive, viz.

January,	...	...	...	...	...	...	...	...	...	10
February,	...	...	...	...	...	...	...	...	...	16
March,	...	...	...	...	...	...	...	...	...	32
April,	...	...	...	...	...	...	...	...	...	36
May,	...	...	...	...	...	...	...	...	...	40
										<hr/>
Total,	...	...	...	...	...	...	...	...	...	134

From the 15th of April to the 20th of May was the period of greatest mortality. It began to decline from the latter date, and nearly ceased before the end of the month, but within the present month several fresh cases, of a most malignant character, have occurred.

3. *Statistical returns*, as to the rise, course and progress of the disease from ghaut or burial registers and Police records.

I regret there are no such records or registers available, though it would be very satisfactory for statistical purposes if there had been; and in future it would, in my opinion, be perfectly practicable to obtain such returns through the agency of the Police authorities if instructions to that effect were issued by the Head of the Department.

4. *Ticcadars*.

During the past six months there were four regular *Ticcadars* actively engaged disseminating the disease, two of whom reside in the district, and two came from Calcutta ; but besides those professional *Ticcadars*, there were several Natives who practised as *Ticcadars* ; and to the mischievous agency of those unprincipled men may, in a great degree, be attributed, as already stated, the rapid increase, malignancy and mortality of the disease. There were other causes, such as season, extreme poverty, with all its concomitant miseries, &c., which no doubt tended to impart more than usual virulence to the Epidemic, and to swell the number of its victims.

5. *Vaccination*.

The Natives of this district, poor and rich, with few exceptions, are opposed to it, as much from a religious veneration for *Situla*, as from their want of confidence in Vaccination as a security against Smallpox : but I believe religious superstition to be the principal hinderance to its general adoption amongst the people ; and here I may observe that Serampore is the hotbed of the most rank and intolerant Hindoo bigotry, owing to the great number of *Brahmins* who reside in it ; and these persons, assisted by the support of the respectable Baboos of the place, foster all religious prejudices amongst the people, and thus greatly facilitate the baneful influence of the *Ticcadars*.

I regret to say the leading members of the Hindoo community at this Station are all in favour of Smallpox Inoculation ; were it not so, they could have easily, through their influence and example (by adopting Vaccination in their own families, and introducing it amongst their domestics) have counteracted, if not put a stop altogether, to the operations of the *Ticcadars*, and thus at once have checked the desolating spread of the disease and the excessive mortality which attended it during the past year. The whole blame then (as Dr. Cameron justly observes, in his communications on this subject to the Medical and Physical Society of Calcutta, dated November 1831,) does not rest with the *Ticcadars*, for if the families who employ them should accept Vaccination, they would have no hesitation in using it, so long as they got paid for their trouble.

6. As to the expediency, therefore, of putting down Smallpox Inoculation by legislative enactment, there cannot be a second opinion at least amongst Medical Men, and such is the case. I believe, "it is the great means" (as Dr. Cameron remarks, in the communication

Dr. A. J. Sheridan,
of Serampore, to Dun-
can Stewart, Esq., M.
D., dated 21st June,
1850.

*Dr. A. J. Sheridan,
of Serampore, to Dun-
can Stewart, Esq.,
M. D., dated June,
1850.*

referred to,) "by which Smallpox is kept up in this country ; and while the practice continues, it will be utterly impossible to extinguish the disease. It is therefore indispensable to the interests of humanity that the practice should be put down," and until some stringent law is passed making the practice liable to a criminal prosecution as in England, Vaccination never will be generally, much less universally, adopted in this country ; for it is well known the most convincing proofs of its comparatively superior efficacy against Smallpox, and of the danger and fatality to which Smallpox Inoculation exposes not merely the recipients of the infection but the community at large have no weight with the ignorant and superstitious Natives.

7. For more than half a century has the Government, through a considerate but mistaken respect for the feelings and prejudices of the people, tolerated the practice of Smallpox Inoculation, in the vain expectation that, with the diffusion of knowledge and civilization, it would gradually fall into desuetude, and eventually become superseded by Vaccination, but such has not been the case ; and the painful results of the experiment as shewn by the mortality during the past and previous years, fully demonstrate the folly of further forbearance. I am, therefore, firmly convinced, not merely of the expediency, but of the absolute necessity, of putting down the practice of Smallpox Inoculation without delay, by legislative enactment.

I have the honor to be,

Sir,

Your most obedient Servant,

(Signed) A. J. SHERIDAN,
Civil Surgeon.

SERAMPORE,)
21st June, 1850. }

Assistant Surgeon FROM ASSISTANT SURGEON W. H. B. ROSS, of Hooghly,
W. H. B. Ross, of TO DR. STEWART,
Hooghly, to Dr. Stew-
art, dated 6th June,
1850.

Secretary, Smallpox Committee, Calcutta.

Dated 6th June, 1850.

SIR,

In reply to your Circular letter dated the 18th March last, I have the honor to inform you that considerable delay has occur-

red in my procuring any information regarding Smallpox. I, in the first place, addressed the letter No. 1 herewith annexed, to the Magistrate, and the letter No. 2 is his answer. In letter No. 3 you will perceive, I sent a similar letter to the Collector, and No. 4 is his reply. Finding that I could get no information through either of these channels, I endeavoured to get some information by means of a meeting among the Natives, the meeting took place some time ago ; but I have not, up to the present date, been favoured with a copy of the proceedings, but it will be forwarded as soon as I have tested the information which it contains.

*Assistant Surgeon
W. H. B. Ross
of Hooghly to Dr.
Stewart, dated 6th
June, 1850.*

2. There were no cases of Smallpox among the European inhabitants of Hooghly, and very few cases among the Eurasians at this place. I attended three Eurasians who had the disease, one case proved fatal ; they had all been vaccinated, but in the fatal case there were no vestiges of Vaccination, and I therefore doubt if it had been properly performed. In the house in which this fatal case occurred I vaccinated a child of a month old, the sister of the person who died of the malady, and with complete success ; the operation most perfectly protected the infant from the dire scourge. No. 5—There were 10 cases treated among the Natives under my medical care ; of these 5 were Mussalmans and 5 Hindoos, all of them males, the whole of them had been inoculated early in life, except one in the family of Baboo Essenchunder Banerjee, and yet every one of these *inoculated* cases were confluent Smallpox.

3. The case after Vaccination in the house of Baboo Essenchunder Banerjee was of a very mild character ; I vaccinated in the house of the head Moulovee of the College five children, while one of his sons had a most severe attack of the malady and a student laboured under the same disease, of which (it being of a very malignant character) he died ; and as all my cases of Vaccination were successful, not one of them were attacked with Smallpox.

4. There was a case of Confluent Smallpox in the house of Nobin Doss, a teacher in the College. Some days after the disease had made itself manifest, I vaccinated the infant child of this Native Gentleman, and with the same result of securing the poor babe from the dire scourge.

There have been several very severe cases of malignant hemorrhagic Smallpox ; 3 cases died from hemorrhage from the mouth, from the bladder of urine, and from hæmorrhagic dysentery. The last case

Assistant Surgeon
W. H. B. Ross, of
Hooghly, to Dr. Sten-
art, dated 6th June,
1850.

lingered until the 18th day, but from the violence of the purging nothing could allay it until the powers of life were quite extinguished, and the person perished from sheer exhaustion. The usual treatment by astringents, opiates and stimulants were employed in vain in all these three fatal cases. In the case attended with hæmorrhage from the nose, the person died about the 15th day from the commencement of the febrile accession, and yet the eruption never matured ; indeed in all the three cases the pustules never filled properly, and in a day or two assumed a negroid character : I fear in many instances my medicines were not given except to *make believe*, while I was paying my visits ; so great is the prejudice of the Natives against giving medicines in Smallpox.

6. It is a well known fact, that in addition to the small quantities of food they allow, they do nothing, but put their sick relations under the protection of the Goddess *Situla* ; after which no person of a different cast or religion can approach their abode.

7. The attempt to trace the disease to the *Ticcadars* has failed here, as you will perceive from the report of the Native meeting, which I hope to send you in a few days ; the whole of the papers were nearly destroyed by an accident which is one reason why I have not yet been put in possession of the proceedings of the Native meeting which took place at Chinsurah, to consider the whole subject of Smallpox.

8. The best plan, in my humble opinion, to prevent these almost yearly Epidemic visitations would be to render it illegal (by a Legislative Enactment,) to inoculate ; and I have no doubt if such an Act were passed, we would soon be able to obtain the services of the *Ticcadars*, as Vaccinators, on a fixed sum, as a salary, *provided* they brought for the inspection of the Superintendent a certain number of successful cases. A fixed salary, on these conditions, would answer better than so much per head for each case.

(Signed) W. H. B. Ross,
Civil Assistant Surgeon.

ABSTRACT of cases of Smallpox which occurred at HOOGHLY, and its neighbourhood, and which were under my medical treatment during the late Epidemic visitation.

Assistant Surgeon
W. H. B. Ross, of
Hooghly, to Dr. Stewart,
dated 6th June,
1850.

	No. of Cases.	Cured.	Died.
Christian Eurasians,	3	2	1
Mahomedans,	5	3	2
Hindoos,	5	4	1
Total,	13	9	4

HOOGHLY, }
6th June, 1850. }

W. H. B. Ross,
Civil Assistant Surgeon.

(ENCLOSURE No. 1.)

FROM THE CIVIL ASSISTANT SURGEON of Hooghly,
TO THE MAGISTRATE OF Hooghly.

SIR,

The Civil Assistant
Surgeon of Hooghly
to the Magistrate of
Hooghly, dated 26th
March, 1850.

I have the honor to send you copies of a communication I have received from the Secretary of the Committee, which has been formed by Government, for investigating the causes, rise and progress of the late epidemical visitation of the Smallpox in the Province of Bengal.

Will you have the kindness to co-operate with me, in endeavouring to find out the extent to which the disease has prevailed in Hooghly and its district? For the purpose of eliciting information, I would suggest that copies of the queries which I now send, be forwarded to a number of the more respectable land proprietors of the district. Upon your receiving answers to the queries, will you have the goodness to direct them to be translated into the English language, in order that I may embody them in my Report. Have the kindness to inform me if there are any records or data from which you can ascertain the number of deaths which have taken place in the Towns of Hooghly and Chinsurah, and in the event of there being no records now kept I would suggest that in future an endeavour should be made to obtain through the Police a report of all fatalities from Smallpox; but before this can be effected I suspect you will require some legal Enactment to enable you to take such steps as would ensure an accurate return of deaths from this dire scourge.

I have, &c.,

HOOGHLY, }
The 26th March 1850. }

(Signed) W. H. B. Ross,
Civil Assistant Surgeon.

*The Magistrate of
Hooghly to the Civil
Assistant Surgeon of
Hooghly, dated 19th
April, 1850.*

(ENCLOSURE No. 2.)

FROM THE MAGISTRATE *of Hooghly,*
TO THE CIVIL ASSISTANT SURGEON *of Hooghly.*

SIR,

In reply to your letter No. 41 of the 26th ultimo, I have the honor to inform you, that I have the greatest dislike to interfere with the landed proprietors on any other than on business connected with the Police. I beg to suggest that you forward a copy of the queries, you have sent me, to the Collector, who is, I think, more likely to obtain information from the landholders with less risk of oppression.

2. I have also the honor to inform you that in the present state of the Police, I trust I may never be obliged to order the Police to report all deaths by Smallpox, as such would be a certain cause of oppression and extortion.

I have, &c.,

(Signed) S. WAUCHOPE,
Magistrate.

HOOGHLY,
The 19th April, 1850. }

(ENCLOSURE No. 3.)

*The Civil Assistant
Surgeon of Hooghly
to the Collector of
Hooghly, dated 22nd
April, 1850.*

FROM THE CIVIL SURGEON *of Hooghly,*
TO THE COLLECTOR *of Hooghly.*

Dated 22nd April, 1850.

SIR,

I have the honor to send you a copy of a letter from the Magistrate, and shall feel obliged by your endeavouring as he has suggested, to obtain answers to the queries submitted by the Smallpox Committee.

2. Have the goodness to forward copies of the queries to all such persons as you conceive to be competent to furnish the information, provided you approve of the channel of communication passing through your office.

3. I herewith send you copies of the queries.

I have, &c.,

(Signed) W. H. B. ROSS,
Civil Assistant Surgeon.

(ENCLOSURE No. 4.)

FROM THE COLLECTOR *of Hooghly*,
TO THE CIVIL ASSISTANT SURGEON *of Hooghly*,
Dated Hooghly, 6th May, 1850.

*The Collector of
Hooghly to the Civil
Assistant Surgeon of
Hooghly, dated 6th
May, 1850.*

SIR,

In reply to your letter of the 22nd April 1850, No. 64, I have the honor to express my regret at being unable to collect the information required by you at the instance of the Smallpox Committee.

2nd. The present is a most busy period of the year, and I find it quite impossible, with an overburthened Establishment, to comply with the numerous requisitions already received from the Commissioner, Sudder Board of Revenue, and other Departments, more immediately connected with the ordinary duties of the Office.

I have, &c.,
(Signed) A. REID,
Collector.

(ENCLOSURE No. 5.)

FROM * * * Esq.,
TO DR. W. H. B. ROSS,
Civil Assistant Surgeon.

*From * * * Esq.
to Dr. W. H. B. Ross,
dated 5th June, 1850.*

MY DEAR SIR,

I have much pleasure in stating that my baby was vaccinated after my beloved Ellen had the Smallpox, and the child though living in the same house, and constantly in the *same room* where my dearest Ellen laid sick, escaped the contagion ; and that the mother, while giving suck to the child, was in constant attendance on her much loved daughter.

CHINSURAH, }
5th June, 1850. }

Yours, &c. &c.,
F. B. B.

FROM DR. T. W. WILSON,
Civil Assistant Surgeon, Bauleah,

TO D. STEWART, Esq.,
Secretary to the Smallpox Committee, Calcutta.
Dated 2nd May, 1850.

*Dr. T. W. Wilson
to D. Stewart, Esq.,
dated 2nd May, 1850.*

SIR,

I have the honor to reply to your letter of the 18th March 1850, regarding Smallpox, Vaccination, and Inoculation.

Dr. T. W. Wilson
to D. Stewart, Esq.,
dated 2nd May, 1850.

The information as to the general feeling of the Native community here is derived from recorded statements of a number of individuals. A few of the best of these Statements are submitted for the satisfaction of your Committee.

2. From enquiry it appears that the best informed Natives in the Rajshyhe Sudder Station, have now little or no confidence in Vaccination. That confidence, where it once existed, has been disturbed by a prevailing belief that Vaccination possesses only an inferior protective power.

This belief seems to have arisen here in part, from cases of Smallpox having occurred at Bauleah after Vaccination, and to have been much strengthened by similar cases reported among Europeans in Calcutta during the last Epidemic, and not a little from statements, said to emanate from the Calcutta Medical *elèves*, that Vaccination possesses only a temporary protective influence requiring to be repeated at certain intervals.

I have been also told here, it is chiefly the poorest and most ignorant that allow of Vaccination, because it can be got from the Government Vaccinator for nothing.

3. The suppression of Inoculation would be looked upon as a harsh measure, was the *unanimous* opinion of the Natives I conversed with, and these were not a few. The spirit of the Bengallee here is altogether adverse to any such forcible change. Inoculation is well known, extensively and skilfully practised, protects nearly 90 per cent. of the population; the remnant unprotected, are partly so from custom or religious prejudice. Thus some parents will not have it, because from father to son it has always been so; and a few because at their birth having been devoted to *Hurri*, trusting in him, they defy the laws of Nature. The poor have confidence and pay for it, which as yet they will not for Vaccination. On the contrary, exertion is required to get subjects for it; and however desirable it may be to introduce Vaccination, if such is the general feeling over the country, most certainly it could not be done by any enactment of the Government; for there is no enactment on the face of the earth could make the entire parents of a district abandon an operation, so long as they believed it to be effectual in saving the lives of their offspring, for one, which was known or believed to be ineffectual for the end proposed; and if the system of Inoculation is actively interfered with before we convince the Natives generally of the superior, or equal efficacy of Vaccination, undoubtedly there is a possibility of our changing what now is little more than indifference, into opposition.

The thing is not to be got rid of by forbidding it, and we dare not forbid it before having provided the substitute. Whenever a *Ticcadar* is removed, Government must place a Vaccinator, otherwise we increase the evil ; for if we wholly or partially suppress Inoculation, and fail to introduce Vaccination to a like extent, we must leave a larger proportion unprotected ; and when an Epidemic does come, it will be with a vengeance. Inoculation is *not a curse*, it is *a blessing*, and was so considered in England till Vaccination superseded it, and it is so here, till the people understand and take to its substitute. Let the schoolmaster go abroad a little longer, and when the spirit of the age calls for a change, when we have convinced the people generally that what we recommend will indeed secure them from Smallpox, and when we have supplied men who will really vaccinate and not inoculate, in short when we have made it a *want* of the people, then we can carry Vaccination on the rising tide of popular belief to any extent, and then, if it is choosed, let us have an enactment forbidding Inoculation, to finish the business ; but to begin thus, with a chance of success, appears impossible.

4. These are not my views alone.* There is a perfect unanimity

* See Appendix. among the Natives here as to the inexpediency of any Legislative enactment on the subject, and one, the most enlightened and talented among them, though thinking Vaccination might be introduced, is of the same opinion.

If compulsion is required it should only be exerted to force every individual to submit to one or other form of protection, *Inoculation* or *Vaccination—nothing more* ; and let our aim be to make the latter the *want* of the people ; and thus let the system, as it were, naturally change, and naturally support itself. To attempt to make Vaccination immediately general by enactment is to build up a system which, having no hold on popular opinion, is not likely to prove useful or permanent.

5. The questions circulated by the Committee were generally answered as follows :—

Question 1st.—Most had never known any instance of infection from inoculated Smallpox ; all excepting some *Ticcadars*, (this of course !) believe inoculated Smallpox to be infectious. A few had *known* instances of infection, and a smaller number had *heard* of deaths from Smallpox thus excited. The Deputy Magistrate of Nattore (who I know has taken much trouble to answer these questions,) says that instances of infection are numerous, and he has heard of two inoculated persons dying.

Dr. T. W. Wilson
to D. Stewart, Esq.,
dated 2nd May, 1850.

Dr. T. W. Wilson
to D. Stewart, Esq.,
dated 2nd May, 1850.

Remarks.—It was evident to me from the replies, that cases of death from Inoculation could not be numerous ; the infectious nature of the inoculated form of the disease is generally recognized and guarded against as much as possible ; the *Ticcadars* mostly allowed it ; they also allow that severe cases occur after Inoculation, but *deny* that any are fatal. These evils were certainly not, in the estimation of the respondents, of so common an occurrence as to excite alarm, or make them look anxiously for a new or milder kind of operation ; and I am almost persuaded, from enquiry, and consideration of the time of year selected for the operation, from the age of the subjects, and the care taken, that the mortality among those operated on, exceeds little, if it exceeds at all, what it was in England in former days, 3 or 4 per 1,000. That a great proportion of severe cases have occurred to ourselves, *after supposed Vaccination*, may be accounted for, by the operation (under the supposition that it was Vaccination,) having been performed without precaution, without care, at improper seasons, and without reference to the age.

Question 2nd.—One individual stated that no one but himself preferred Vaccination ; a second that there was only one man in the district ; others, that none *now* preferred it.

Remarks.—As to the first individual he might once have preferred it, but as he reverted to Inoculation for his child this year, his continued preference is of a doubtful kind ; as to the second he is a person educated and brought up in Calcutta whose wife and children have been vaccinated ; with this exception, and the Deputy Magistrate of Nattore, likewise from Calcutta, and who is perhaps alone open to conviction, I have failed to hear of any respectable individual who now gives preference to Vaccination ; but I think that if trouble were taken to make the advantages of Vaccination understood, many individuals might be induced to prefer it. The Deputy Magistrate at Nattore writes that he can induce many to submit. (See letter in the Appendix.)

Question 3rd.—All prefer Inoculation, perhaps one or at most two exceptions may be made among the respectable. A body of the Vaccinated Coolies replied in a breath that Vaccination was the best, because it did not interfere with their food.

Remarks.—Active discouragement there is none. The Natives seem only to require to be convinced that Vaccination affords equal protection, to adopt it ; and it would after such conviction, become highly popular, freeing them at once from restraints as to diet, &c., imposed by the Native *Ticcadars*.

Question 4th.—Generally from the best men the reply was that they did not feel qualified to answer the question, and again, it might be that it was set up by the *Ticcadars*.

Dr. T. W. Wilson
to *D. Stewart, Esq.*,
dated 2nd May, 1850.

Remarks.—All classes of Natives here are alive to the infectious nature of inoculated Smallpox. I have had many instances given me, but none of a remarkable kind. Many replied that they had never known a single case thus excited, but also stated that Inoculation was practised with precautions against infection.

6. Finally, the reply was unequivocal and unanimous against any legislative interference. Inoculation is perhaps more universal here than is supposed—no place in the district of any importance is without its resident *Ticcadars*. Every 10 to 30 *Busties*, according to their importance, may be regarded as having its *Ticcadar*. The Returns sent by the Police of the number of *Ticcadars* cannot be looked upon as correct, many have been omitted and some reckoned twice, yet it shews that there are abundance of these men in the district.

Ticcadars.

No.	Thannahs.	Resident.	Migratory.	Remarks.
1	Bhobanygunge,	21	7	These remain from 10 days to 2 months, and come from Moorshedabad side of the Ganges.
2	Surdah,	36	1	
3	Mandah,	13	3	
4	Meergunge, ...	4	3	
5	Bauleah,	19	6	
6	Pooteah,	18	2	
7	Belberia,	12	7	
8	Tanmore,	9	7	About thirty others mentioned as coming from neighbouring Thannahs! The 7 are from Berhampore side of the river.
9				Names of Villages given. Mostly from neighbouring Thannahs. The fear of tax or interference has made some deny their vocation when enquired into. The resident <i>Ticcadars</i> may be regarded as pretty nearly the correct number; those that visit the various Thannahs merely coming from the neighbouring Thannah or District, so that they are probably, in most instances, the individuals who have been included in the resident list, with the exception of 7 or 8 from Moorshedabad.
10	{ Nattore and its neighbouring Thannahs. }	A great number of these also Cobyrajahs.	11	55
11				
12				

Dr. T. W. Wilson
to D. Stewart, Esq.,
dated 2nd May, 1850.

7. I have satisfied myself, by personal enquiry and interviews with these men, that there are great numbers located in or near every place of importance. The migratory *Ticcadars* do not come from any great distance but from neighbouring Thannahs or districts. They, as well as the *Ticcadars* of the district, have each an assigned beat, seldom interfering much with one another. This arises from a preference given, by father and son in succession, to the *Ticcadars* who have always visited a village and done their work well. The *Ticcadars* are, in fact, among the poorer villagers, in most instances also the medical attendants; the doctor and *Ticcadar* are not separate except in the larger places, and all of them attend Smallpox cases and fevers; even "*Legee*," a female *Ticcadar* of Beauleah, attends in cases of Smallpox; I have not seen her, but she is stated to be hair dresser, nail parer, medical attendant in Smallpox cases, and Inoculator among the *Kushbees* of Beauleah.

8. The operation of inoculating is commenced in December or January and continued till February, sometimes part of March: it does not appear ever to be practised, at other seasons, unless Smallpox breaks out in a village, when the *Ticcadar* may be called to confer protection; all villages are not visited annually; sometimes in the poorer, more distant, and less populous, years may elapse; in such places, the pestilence is said to commit great havoc, when it does break out; excepting under the above circumstances. I have not learnt that Inoculation is practised in the hottest months, or during the rains; and it is *then* feared by the people themselves as unsafe.

9. Generally the whole of a house or village are assembled for Inoculation at once. In respectable families a separate invocation to *Situla*, the Goddess of *Bussunt*, precedes the operation, generally it is for the whole village. Infants at the breast are not inoculated; when one year is completed and the child is capable of any other food besides the mother's milk, it is looked on as old enough for the operation. The children inoculated are forbidden to bathe from the 7th day, continuing to do so is believed to be a certain means of increasing the eruption. The clothes are not changed, and when fever comes on no oil is rubbed on the body, and fish and *mussoor ka dall* are forbidden, and what is considered a cooling *shurbut* made from sugar or *goor* is ordered. When the eruption has declined on the 13th day or more, and the children are able to bathe, the *Ticcadar* is paid at the rate of 4 annas each boy and 2 annas for a girl, (a girl being looked on as less valuable, because her marriage is expensive and her labour for the common good less productive.) No payment is

made to the *Ticcadar* unless fever and eruption have taken place ; *Ticcadars* occasionally got more from the wealthy, very often less, and sometimes even performed on the poorest for nothing. Perhaps we have here some explanation of the breaking out of what I have termed

* See annexed Report elsewhere *Varioloid eruptions after Vaccination*.* The custom of not paying till such marks

have shewn that the Inoculation is perfect may have induced our Vaccinators to use *Smallpox matter* in order to secure the usual fee.

10. The extent to which this practice is carried in this district is shewn by the following Table. I have reason to believe that it is equally common elsewhere in Bengal. The following Table is the result of a personal examination made by myself.

Places.	No.	Inoculated.	Vaccinated.	Natural Disease.	Remaining unprotected.	Remarks.
Beauleah Jail,	730	632	1	50	27	From recollection I can state, that at Mymensing I examined a number of Prisoners and found them inoculated in almost every instance.
District Chowkedars,	47	43	0	4	0	
Town Coolies,	174	146	8	11	9	
School Boys,	70	59	2	3	8	
Coolies 1 Mile from Station,	162	90	67	2	3	
Total,...	1183	970	78	70	47	

So that we have nearly 90 per cent.* of the population *protected*. I at present consider the vaccinated as if they had been inoculated, for they would have been so if they had not been vaccinated from residing in the N. V. Village. The infectious nature of inoculated Smallpox is generally recognised. I cannot fancy how any statement to the contrary was ever thought worth repeating, though certainly its diffusion seems to depend greatly on crowded habitations, heat, &c., and on some occult and peculiar state of the atmosphere. I have not been able to trace the origin of any extensive or fatal epidemic to this practice—though I have

* Within a fraction of 89 per cent.

Dr. T. W. Wilson
to D. Stewart, Esq.,
dated 2nd May, 1850.

Dr. T. W. Wilson
to D. Stewart, Esq.,
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ascertained many particular cases to have been thus excited, and also deaths. Moreover during a 13 years' residence in India I have recorded not a few cases, some melancholy enough, produced by using a lymph degenerated, or may be adulterated by the Native Vaccinators, a lymph which if it is not Smallpox virus, corresponds exactly with it in its effects, transferable by Inoculation and exciting genuine Smallpox by infection. There can be no doubt that wherever a *Ticcadar* plies his vocation, there must exist a centre of infection, which, under favourable circumstances may, like the Calcutta Epidemic, radiate to the extremities of the empire. And notwithstanding I would not have Inoculation put down by enactment, to save Vaccination from discredit, it would be well, before doing this, to consider what has been done under our immediate supervision, and what it is very possible we may continue to do in the Vaccination department in the Mofussil. Under the present system we have been often *propagating* what we are talking of *suppressing*, and it

* Annexed. is evident from the following Report,* that we have to

fear that we may too often cause Inoculation to be carried on under the worst circumstances without regard to age, season, treatment or infection.

11. The enquiry made by the Committee as to the origin, mode of diffusion and ravages of the present epidemic, I can have little to say to ; as regards this district, I may mention that it was introduced into Beaulah about the middle of January, if not sooner, by one Gouroo Arrany from Calcutta. He had Smallpox on the road and died after his arrival. His children were infected, one survived ; after this the infection could not be directly traced though occasional cases continued to occur. After this there were three separate importations by river Steamers landing diseased persons.—One infected person, who was sent, Thannah by Thannah, from Hooghly to answer some charges, no doubt left the seeds of the distemper at many places on his road up. Another instance may be mentioned as it illustrates the growing distrust of Vaccination. A young person arrived from Calcutta with Smallpox, the father sent for a *Ticcadar* to inoculate the unprotected of his family. This is the conduct of a father, respectable, well educated and informed, who had seven other vaccinated children but now reverted to the old system. I have troubled you with the above to shew how impossible it is to attach any importance to a solitary statement that the disease prevailed after the *Ticcadars* commenced their work. These cases also illustrate well how readily an infectious disease is carried over a country. It, however, has not prevailed

with severity. There is no register of fatal cases nor has it for the past six years been so severe and fatal as to cause a general fear and attract attention. That it did not rage here this season, after being so well and frequently introduced, is remarkable, as we have all the circumstances likely to assist its spread—a crowded town, heat, filthy drains, with Native habits. Into the Jail it was introduced by a Klassee, and the prisoner from Hooghly. Of 5 cases 2 were fatal.

12. *Vaccination*.—Since 1845 to the present time agreeably to the Native Vaccinator's returns 3,959 persons have been vaccinated successfully.

*Dr. T. W. Wilson
to D. Stewart, Esq.
dated 2nd May, 1850.*

Year.	Successful.	Unsuccessful.	Remarks.
1845	653	31	
1846	992	39	
1847	625	70	One Month not entered—No record.
1848	993	109	
1849	532	126	Vaccinator in bad health, frequently suffering from fever, accounts for the small number.
1850	164	23	
3 Months,	—	—	
	3959	398	

All who are acquainted with the system well know that these numbers cannot be tested. The Medical man merely ascertains by personal inspection that the Vaccine infection is kept up. Whatever his vigilance, he is liable to be deceived as to the *number*; whether to rouse the exertions of the Vaccinator he stimulates by censure or praise, the effect is the same. He may have the numbers increased on paper, for the truth, excepting close to his Station, is not likely to be tested; how then can we, in every instance, test the nature of the lymph that is made use of? By explaining to my Vaccinator that unsuccessful cases counted in his work, and that a true account of them was expected, the number more than doubled. What became of them before?

13. In the first page it has been shewn that nothing like confidence in Vaccination exists in this district; that the protection conferred by it is not complete is the general reason given. This mistrust was not confined to the Native community but was found among some of the

Dr. T. W. Wilson
to D. Stewart, Esq.,
dated 2nd May, 1850.

Eurasians, who also expressed a preference for Inoculation. This was not to have been expected, but an explanation was found in the circumstance of some vaccinated children in the town having, it is alleged, had Smallpox ;—if this was true, it did not matter how slight or modified the cases were, for Natives are not capable of reasoning on the subject as we do. This was stated to have occurred about 8 years ago when some vaccinated children were attacked with Smallpox. Others who had been vaccinated were in consequence subjected to Inoculation by Kulloo, a Musulman *Ticcadar*, and an eruption is alleged to have come out. To verify the statement I visited the town and found one Harry Bruce, a Native Christian, who having three vaccinated children at the time the above cases occurred, and was then inoculating two others, ordered the first to be subjected to the test, and an eruption, it is stated, was produced. A Mrs. DeLemos said that *knowing* Vaccination did not protect, she, when having a child inoculated, had a former vaccinated child tested by Inoculation, but no eruption was caused. Another Eurasian says that he knew a Native, who having been vaccinated, had Smallpox. A Native first informed me of these cases and mentioned that Kulloo *Ticcadar* had not mentioned them to me, thinking he would incur displeasure for having interfered and discredited Vaccination by his proceedings. I do not suppose that the Native community will never come to prefer Vaccination, but if it has an equal popularity in other districts, now is not the time to insist on it, when many are ready to throw in our face the fact of cases and deaths from Smallpox among ourselves. Of the indifference to Vaccination I had a proof in the Government School—children of all the most respectable persons in Bealeah are there—out of 70 I found only two had been vaccinated, the father of one this year reverted to Inoculation, and the father of the other seems ready to do the same. Wondering where some of the 4,357 vaccinated might be found, I visited the neighbourhood of the Native Vaccinator's house. There, out of 162 persons examined, 90 were inoculated, 67 vaccinated, 3 unprotected, 2 had had the natural disease, the vaccinated being mostly the younger. Perhaps there has been an error in the System; the Native Vaccinator should have been resident in the town, for on examining 174 coolies working close to the town, 146 were inoculated, only 8 vaccinated, 11 natural Smallpox, 9 unprotected. The annual petition of the Native Vaccinator to stop the Inoculation shews what is the general preference among the people notwithstanding, and I have been told in all my enquiries that the Native Vaccinator exacts no payment.

14. There yet remains to be considered the fact that we ourselves have not been always Vaccinating but Inoculating. I will not stop to enquire whether from faithfulness of our Native Vaccinators mixing the lymph legs or from degeneration of the Vaccine virus, which last I am disinclined to believe ; but if such has been the case in the greater number of the districts in Bengal, even under immediate superintendence, what is to be expected from *Ticcadars* under no control ? All I can suppose likely is that if under cover of our authority they carry on their vocations at all times without reference to age, constitution or season, all may possibly go well, if they faithfully vaccinate ; but all the other way if it turns out that they make use of virus producing Smallpox. If the Vaccine virus degenerates, the case is worse, for there is neither rectitude nor self interest to make the *Ticcadars* watchful and careful to keep up a pure infection ; were they less even than 5 miles from the Station, perhaps even if in it, they would rather resort to Inoculation than take the trouble to come for a fresh stock, and this *must continue till the people want Vaccination*.

Dr. T. W. Wilson
to D. Stewart, Esq.,
dated 2nd May, 1850.

15. Let it not be supposed that I plead in favour of Inoculation—I wish merely to have kept in view the difficulty of generally enforcing Vaccination without the risk of producing greater evils than *now* exist.

It was enforced in England, under what different circumstances, there were practitioners in every village, able and willing to vaccinate and generally a consenting population. The most that can be done is to *enforce one form of protection*, make it *incumbent on every individual to bear mark of Inoculation or Vaccination* ; this *much* might be easily *enforced*.

16. Finally, what steps can be taken to remove prejudice and to make Vaccination one of the *wants* of the people ?

1st.—It has occurred to me that Vaccination may have suffered in estimation here from its being conferred altogether gratuitously, under all circumstances, by which it has come in a manner to be considered in the light of the poor man's physic ; what is not paid for, is not truly valued, it is putting the system in a false position from the first. Nothing would be lost to the cause by recognising the right of the Government Vaccinators to exact the customary Inoculation fees of the district whenever called to any distance. This would at once give him a personal interest in the popularity of Vaccination, and if successful in this would drive the *Ticcadars* to adopt it in self-defence. In three districts, so

Dr. T. W. Wilson
to *D. Stewart, Esq.*,
dated 2nd May, 1850.

far as I recollect the Vaccinators did not reside in the Zillah Town, but in the suburbs or some suburb village ; the effect of this at Beauleah I have spoken of. The Vaccinator's residence should be in the centre of the Town, and he ought there to vaccinate daily gratuitously children brought to him, and also to vaccinate in the neighbourhood, allowing him to be remunerated by the better classes.

2nd.—The Superintendent to attend personally every 8th day, and vaccinate with his own hand or see it done, minutely inspecting the vesicles and approving of them. As the infection would then be kept unbroken under his immediate superintendence, it would soon be ascertained whether it was possible for lymph which once produced genuine Vaccine vesicles ever to become so altered as to produce Smallpox or any kind of spurious disorder.

3rd.—The Government should provide from the first an adequate number of Vaccinators for the Zillah Town. The appointment of such men as at *present* are generally met with, is not *the best that could be made*,—they are mostly *Ticcadars*—it would be well if these could be *replaced by educated Native Doctors of the Military Class*, able to act in some way as general *practitioners*. It is not advisable to separate Vaccination from medicine—medicine is even *now associated* in a degree with the present system of Inoculation, and must always be so. Nothing would more certainly render Vaccination popular than the establishment of Dispensaries to furnish medical aid *in connection with Vaccination* at every Zillah Station.

4th.—The rules of the Institution should be made generally and frequently known, and as opportunity occurs, respectable Natives should be encouraged to prefer Vaccination.

17. Lastly, the truth should at once be fully made known to the Native community that Vaccination does not altogether protect, that neither

does Inoculation, nor is absolute protection* con-

(* This season I saw
a case in a man pitted
by a former attack.)

ferred by the natural disease. That all these
fortify the constitution against the disease, but

that from some original peculiarity a few indivi-

duals remain subject to Smallpox. Vaccination is somewhat less protective than Inoculation, but that it gains immensely from being at all times and under all circumstances perfectly safe, never giving rise to infection, and never fatal ; moreover, that the vaccinated may eat and drink as usual and still safely go through their *ticca* without danger to themselves or others. Perhaps it would be better if the control of the

Vaccine Establishment was given to the Superintendent General, and his office of Superintendent not left a merely nominal one as it is at present.

*Dr. T. W. Wilson
to D. Stewart, Esq.,
dated 2nd May, 1850.*

I have the honor to be, &c.,
(Signed) T. W. WILSON, M. D.,
Civil Assistant Surgeon,
Beauleah.

STATEMENTS OF 7 INDIVIDUALS REGARDING SMALLPOX INOCULATION, AND VACCINATION.

(THROUGH DR. WILSON, BEAULEAH), 2ND MAY, 1850.

REPLIES to QUESTIONS at page xxvii, by BABOO KISSORY CHUND
MITTER,

Deputy Magistrate, Nattore.

*Replies to Questions
by Baboo Kissory
Chund Mitter.*

Answer 1st.—I do not personally know of any instances having occurred here. The *Ticcadars* are always loath to reveal them from interested motives, but from my inquiries amongst them and other respectable persons, it appears that the introduction of Smallpox, by Inoculation into a family, has, in many cases, infected others though not inoculated.

Answer 2nd.—I only know of Baboo Kheter Mohun Mookerjee, Deputy Collector here, who adopts Vaccination by both precept and example. He has had his wife and three daughters vaccinated.

Answer 3rd.—Almost all the Hindoo families in this district prefer Inoculation, but they cannot, strictly speaking, be said to discourage Vaccination inasmuch as they have not seen it practised here. I am assured by many respectable people in Nattore and Hurreshpore, Kamuldear, Nepauldegee, Surgardah, &c., that they would adopt Vaccination in preference to Inoculation if a *Vaccinator* were appointed to this Station.

Answer 4th.—I believe Inoculation to be one of the causes which set up Smallpox among the Hindoos; to their want of exercise—their peculiar habits—the filthy state of their drains—their mode of living may also be attributed its prevalence. Sudden atmospheric changes and the intensity of heat have also a large share in the propagation of the disease. That the last mentioned cause has at least as much to do with it as the others, is evidenced by the fact that they are always reluctant to resort to Inoculation in the hot season.

*Replies to Questions
by Baboo Kissory
Chund Mitter.*

Answer 5th.—I do not think it would be expedient or practicable to prevent Inoculation by law. Inoculation is associated with religious ceremonies and prejudices, and I believe that legislative interference with it would not only create much discontent, but prove inoperative. I am, however, inclined to think that it would not be difficult to prevail upon the people to adopt Vaccination, and have no doubt that when once practically convinced of its preventative powers, they would gladly resort to it in preference to Inoculation.

Answer 6th.—I know of two cases of death from Inoculation which occurred in February last in a village called Koroluck. One, a male child of Sheraz Sirdar, and another, a female child of Berro Sirdar. I may as well mention here that I have learnt of two other cases of death by Smallpox appearing *many years* after they had been *inoculated*.

Answer 7th.—The general impression among my countrymen, both here and elsewhere, regarding Vaccination is, that it is not so safe as Inoculation. The necessity of its periodical repetition is supposed to imply its insufficiency, and to be fraught with danger.

(Signed) K. C. MITTER.

*Replies to Questions
by Baboo Neelmony
Bysack, Head Assis-
tant to the Commis-
sioner.*

REPLIES to QUESTIONS by BABOO NEELMONY BYSACK,
Head Assistant to the Commissioner.

Previous to giving in a written reply to questions, stated that he had no knowledge of Smallpox introduced by *Ticcadars*, but has heard of it, believes that persons inoculated communicate the disease, never heard of a death thus occasioned, he and his brother live together, have 12 children, 6 have been vaccinated, 3 inoculated, 3 have had natural Smallpox, one child inoculated last month, gives as a reason for reverting to the old practice that having Smallpox in his house at the time (brought from Calcutta) he was in a hurry. States it to be a general opinion that Vaccination does not confer certain protection, but requires repetition, that he had heard so from the Calcutta educated Doctors, that if not repeated the person became unprotected in time, this is a general belief; that the objection of the lymph being taken from a cow, though sometimes mentioned, would not stand as an objection were the public fully convinced of the efficacy of Vaccination. In this conversation, it was evident that Neelmony was himself indifferent to Vaccination from his last proceeding with his own children—does not know nor has he heard that Smallpox was set up this year in Beauleah by *Ticcadars*. Confirms

the statement of some *Ticcadars* made to me, but doubts their willingly telling me the truth.

There are many more. Says there are 4, if not more, *Ticcadars* who
(Signed) T. W. W. reside in Beauleah.

The most important part of his statement, demonstrating his want of confidence in Vaccination, was let out by a question: "are all the *Sahib log* vaccinated?" On my replying, yes, generally so; then how has it happened that so many have lately died of Smallpox though protected by the English *Ticca*? have we not here the explanation of his having his son inoculated.

(Signed) T. W. W.

*Replies to Questions
by Baboo Neelmony
Bysack, Head Assistant
to the Commissioner.*

WRITTEN REPLY by BABOO NEELMONY.

*Written reply by
Baboo Neelmony.*

1st.—Although I myself prefer Vaccination as less dangerous, though not more effectual than Inoculation, yet I do not think it would be advisable or expedient to stop Inoculation and order Vaccination to be practised in lieu of it. Any law on the subject would be considered harsh, and, I think, it would not be practicable to enforce such a law.

2nd.—Most of the intelligent and respectable Natives think that the protection afforded by Vaccination is not complete, and I have heard it said by men, who have studied medicine, that Vaccination is not effectual unless it can be repeated every 10 years. We have a proof of this in the Smallpox breaking out on a number of European gentlemen who had been vaccinated in their early age.

3rd.—I am aware of no instance in which Smallpox was introduced into a family by a *Ticcadar* except by Inoculation. It is not usual to inoculate any single person in a family when there are others in the family who have not had the Smallpox before. All the children in the same family, and often in the same neighbourhood, are inoculated at the same time to prevent the possibility of infection. I know a person who was infected with Smallpox from his not having been inoculated with his neighbours, and he died of it.

4th.—I cannot name any respectable Hindoo family in Rajshyhe who prefer Vaccination and discourage Inoculation by precept or example. I have myself no objection to Vaccination, and had all my children and those of my brother vaccinated instead of being inoculated [here no mention is made of the last Inoculation.] In Calcutta, there are families, and among them the Tagore family, who prefer Vaccination and discourage Inoculation.

Written reply by
Baboo Neelmony.

5th.—Almost all respectable families in this district prefer Inoculation ; 1st, because the men who are employed to vaccinate are considered unfit ; and 2ndly, because there are instances in which persons once vaccinated had a return of Smallpox in their after years ; they also think that Inoculation is more congenial to human kind, being from the pus of men.

6th.—I am incompetent to give an opinion as to the causes which set up Smallpox among the people, it occurs annually more or less, though not in every district or village ; it may be that it follows Inoculation.

This Native Gentleman I consider well qualified to give fairly the opinions on this subject of the community here, and from enquiry made by me, am of opinion that he has done so with ability, rendering it useless to append the opinions of others, being the type of all.

(Signed) T. W. W.

Replies by Baboo
Muddoosoodun, Assistant,
Department of
Public Works, Beau-
leah.

REPLIES by BABOO MUDDOOSOODUN, Assistant, Department of
Public Works, Beauleah.

States to me that he never knew an instance of infection set up in a family by a *Ticcadar*, thinks it may be so; the disease occurs annually about the time the *Ticcadars* commence their operations; after telling about the Goddess *Situla*, he said that formerly he preferred Vaccination, my predecessor had recommended it; but lately he distrusts it, second attacks have been known in the town, he now intends to inoculate his youngest son ; does not know what to do after what has been said regarding Vaccination. The written reply given to the questions is as follows: "Instead of replying to the questions *seriatim* he begs to make general remarks. It is the practice and prevalent among common men to inoculate their children which brings forth regular *Bussunts*, and as far as my knowledge goes no one has ever got the disease who was once inoculated. Since Vaccination was introduced here the Natives found it easier to avoid the religious ceremonies and give up the practice of Inoculation and vaccinate their children according to the English mode, but owing to the late rumour that Vaccination is not an infallible means of securing men from an attack of Smallpox, the practice has fallen in their estimation. I have not met with particular instances which have tended to the downfall of Vaccination nor of any Smallpox introduced into a family by a *Ticcadar*. I do neither recollect any number of Hindoo families in Beauleah who now adopt Vaccination. I am as well ignorant of the chief causes which set up Smallpox every year among

Hindoos. As for the present year, I do not think it is raging at Beaulah though there may be one or two instances of the nature in question. On the whole, therefore, I beg to offer my humble opinion that every individual should be freely allowed to pursue his own course in this matter, without any restriction or limitation.

To stop Inoculation would be every way forcible in this district.

Replies by Baboo Muddoosoodun, Assistant, Department of Public Works, Beaulah.

STATEMENT OF BOUB, *Cobyraj of Pooteah.*

Statement of Boub, Cobyraj of Pooteah.

Practices medicine,—his father did so,—also inoculates,—there are numbers of others near who do so,—every place of any size has a *Ticcadar*. Enumerates in Pooteah or near to it, seven *Ticcadars* besides himself.

Poos, Mag, Phalgoon and *Chyte* are the months for inoculating, the 2nd and 3rd are best,—never practices the operation in the rains unless the Smallpox breaks out in villages, when he does so, inoculating every one,—the operation in his hands has never proved fatal,—he takes precautions to prevent its being severe, he stops bathing, and *mussoor ka dall*, allows no oil to be rubbed on the body and gives *shurbuts* to drink. Says he thinks death may happen from Inoculation, but it never did so with him,—says that now (end of March) Smallpox is very prevalent, that it prevails annually about the same time,—that when it prevails it is further spread by flies, mosquitoes and the breath,—freely admits that infection takes place from the inoculated, but that to prevent this danger the whole children of a village are assembled, and then the operation is performed,—that villages are not visited annually by *Ticcadars*,—sometimes 5 or 10 years intervene,—it is in such places that Smallpox breaks out and prevails with violence,—has seen many instances of infection.

The payment for Inoculation is 4 annas for a boy and 2 for a girl ; it is given after the operation has proved successful, and the patient can bathe.

Praises the English *Beean*,—saw it used some years ago,—it is inserted at four places,—there is less fever and no danger ; he would not object to use it,—cannot say what others would do, but that he would do any thing I liked,—says that the people would certainly object to have it kept up at all seasons from previous knowledge of Vaccination. They would think it bad, particularly in the rains,—but if supplied with English *Beean* and had a purwannah he would have no difficulty,—he said he did not want payment, but that if I would pay him he would pay

*Statement of Boub,
Cobyraj of Pooteah.*

all his earnings to me, but he never could keep up the infection without a purwannah,—has inoculated 2 or 300 last year.

States that there are some families who will not allow of any sort of protection by Inoculation, but these are few.

POOTEAH, }
29th March, 1850. }

*Statement of Anun-
da Nauth Roy, Raja
of Nattore.*

ANUNDA NAUTH ROY,
Raja of Nattore.

The Raja has two children about 3 and 5 years of age, unprotected by Inoculation. I proposed Vaccination to him, offering to do it with my own hand, warning him against leaving them unprotected; he replied that they were too young; on this objection being set aside, he added that it would be requisite to consult as to what was proper; again being urged, he said the season is now gone. In short, he declined, after the Native fashion of doing so.

The Raja is altogether ignorant of Vaccination, and not a likely person to prefer it at present, nor until others set the example.

NATTORE, 28th March, }
RAJSHYE, 1850. }

*Statement of the
Native Vaccinator.*

STATEMENT OF THE NATIVE VACCINATOR.

Villagers (*Chassa Manoosh, &c.*) prefer Inoculation because of the eruption which follows; it satisfies them that all is right. People about the town who have seen the English practice prefer it, because there is less trouble and no danger, no confinement or alteration of diet; that he was formerly an Inoculator, no one ever died in his hands from Inoculation, because he was careful. Bathing after Inoculation is certain to bring out a copious eruption,—that when the fever commences no oil is rubbed on the body,—cooling *shurbuts* are drank, and no fish or *mussoor ka dall* are allowed.

He has known Smallpox set up in villages by *Ticcadars*. About 13 years ago when with his elder brother he inoculated one Gourdess' children and about 25 others, they all did well; there was no Smallpox in the village before; at least 6 or 7 grown up persons took the disease but none died, this occurred at Jelinghy. Cannot at present give any other instance, but knows such to be the case, and it is generally known

and believed, and also that *deaths are occasioned by Inoculation* or from infection set up by it ; says that when a death occurs, the villagers abuse the *Ticcadar*.

*Statement of the
Native Vaccinator.*

Respectable persons at Beaulah who prefer the English practice—named by the Native Vaccinator.

*Remarks by me on en-
quiry.*

- | | | |
|---|---|---|
| 1. Noboo, <i>Moonshee</i> ,
<i>Adawlut Crane</i> , states that through
this man's influence, he has vac-
cinated in Beaulah, | } | This individual, on being
questioned, said he did not
now consider Vaccination
safe. |
| 2. Seebchunder, <i>Paishar Adawlut</i> , | | |
| 3. Rammohun Buddree, <i>Dewan, Silk
Filature</i> , has 5 children vaccinated, | } | No evidence of the pre-
ference remaining to the
present time. |
| 4. Roodoor Moitsee, <i>Adawlut Crane</i> ,
speaks well of Vaccination, | | |
| 5. Govindo Sain, <i>Adawlut Vakeel</i> ,
speaks well of Vaccination, | | |

There are others who do so whose names he does not recollect.

He never heard that persons who had been vaccinated were liable to Smallpox in after years,—and that no such instance has occurred at Beaulah.

STATEMENT of KALLOO, *Mussulman Ticcadar*.

His family have always been *Ticcadars*, he inoculates and attends cases of fever ; that annually in *Poos* or *Phalgon* 6 or 8 men come from the other side of the river ; that they sometimes also come in the rains,—they inoculate in the town and other places in the interior,—they separate and go their usual beat,—they bring the matter with them,—never saw infection set up by Inoculation, nor heard of such a thing,—nor that any one died from it,—but he has seen several cases of Smallpox from it ; last year he inoculated upwards of 200 persons,—some years he has not inoculated more than 50 or 100.

Many years ago he acted as Native Vaccinator here,—that he considers the English *Beean* best, as there is less fever, and only 4 spots of eruption,—but that he found that when the *Sahib* parted with him, and

*Statement of Kal-
loo, Mussulman Tic-
cadar.*

*Statement of Kal-
loo, Mussulman Tic-
cadar.*

he received neither wages nor *perwannah*, that he could not continue to practice English Vaccination, as he could not get paid by the ryots, who knew that he was practising in the English way ; and they said that he was paid by the Government ; so they drove him off without paying, and petitioned against him ;—had only been induced to adopt the English practice in hopes of being ultimately paid.

As regards the opinion of the people as to which is the best system, Vaccination or Inoculation, he replied to the question “ *bhulla boora, coi junta ne.*” This I believe to be the state of the case all over the district.

Says that when Vaccination was first introduced it was only kept up by a few ; that near the station some trust to it, but even now there is trouble to get subjects, and the Native Vaccinator has often trouble to keep it up. Had he a *perwannah* there would be no difficulty in introducing the English practice, if all other *Ticcadars* agreed.

SECOND STATEMENT.

Seven or eight years ago he was called to inoculate Mrs. Delmos's child, when Mrs. Delmos told him to inoculate another child which had been vaccinated, and the child had an eruption of Smallpox ;—further states that 10 or 12 years ago Smallpox broke out and attacked many of those who had been vaccinated, and that he was called upon to inoculate about 15 such, (gave some names, forgot others.) The truth of the above statement was in part tested by taking Mrs. Delmos's statement which is,—When having one child inoculated she directed another that had been vaccinated, to be inoculated also, but it did not succeed ; but that Harry Bruce, a Native Christian servant of her's, has 5 children, 3 had been vaccinated and were afterwards inoculated, and all had Smallpox.

Mrs. D. on account of the above failure now distrusts Vaccination ; she also thinks that Vaccination does not confer complete protection. Mr. Oulong, living in the same house, knows a Native who having been vaccinated was afterwards inoculated, and Smallpox came out as usual ; the individual is dead. Mr. Burrows inoculates his children.

FROM DR. J. R. WITHECOMBE, M. D.,
Officiating Civil Assistant Surgeon, Darjeeling,
 TO D. STEWART, Esq.,
Supdt. Genl. of Vaccination, Calcutta.

*From Dr. J. R.
 Withecombe to D.
 Stewart, Esq., M. D.,
 dated 30th April, 1850.*

Dated 30th April, 1850.

SIR,

In reply to your circular letter of the 18th ultimo, I have the honor to state that during the period of the last two years and up to the present date, I have neither seen nor heard of a single case of Smallpox occurring in Darjeeling, or in the neighbouring Hills. As I have no local knowledge of the disease, I can have nothing personally to communicate on the subject, but am sanguine in hoping that Darjeeling may be left blank in a general return of Variola for this year, which ought to have some weight in establishing its reputation as a Sanatorium.

Vaccination is carried on with the greatest vigour and attention both by those under me and by myself, insomuch that at the period when I expected Variola would appear in an Epidemic form in this place, namely, when cases were frequent in the Dinagepore, Rungpore, and Purneah Districts, there was not a person among the European or Hill population who had not been vaccinated, many of them recently. The inhabitants of these Hills, consisting of Bhooteahs, Lepchas, Limboos, Cumboos and Yakas and others, so far from objecting to Vaccination, highly approve of and seek it on all occasions, evincing great dread of Smallpox ; to such an extent that wherever it may happen to appear, it is the signal for the inhabitants to remove immediately to a distance.

I believe the Vaccine lymph to be greatly degenerated and would be very glad to allow the present stock to die out, and introduce fresh virus of a more genuine kind from England.

The questions dated the 19th ultimo, I have put to all the Bengallees in this place ; the result has been a letter addressed to me, by the Baboos resident in Darjeeling, embodying answers to the main questions, and which I enclose for your information. As far as I can understand it, from very indifferent translations, it would appear to be worthy of being well translated being in favour of the introduction of Vaccination under authority, but attaching great blame to the ignorant *Ticcadars* of Bengal ; and there is some irrelevant matter contained in it.

*Dr. J. R. Withe-
combe to D. Stewart,
Esq., M. D., dated
30th April, 1850.*

Beside two Native Doctors who vaccinate on all opportunities there is one *Ticcadar*, a Lepcha, paid eight rupees per mensem. He vaccinates all the hill people in Darjeeling and its immediate neighbourhood. He is not allowed to inoculate, nor indeed would the people for one moment submit to such a practice, but highly approve of Vaccination, although Inoculation is the usage in Nepal, the neighbouring country, and Vaccination is confined to the precincts of the Residency, under the Residency Surgeon.

Any information I may gain after this I will record, to enable me to furnish you with it when called upon.

I have the honor to be, &c.,

(Signed) J. R. WITHECOMBE, M. D.,
Offg. Civil Assistant Surgeon,
Darjeeling.

DARJEELING, }
30th April 1850. }

*Replies to Ques-
tions by the respectable
Baboos resident in
Darjeeling, through
Dr. Withecombe.*

REPLIES to QUESTIONS, vide page xxvii, by the respectable BABOOS
resident in Darjeeling.

THROUGH DR. WITHECOMBE.

অশেষ গুণালঙ্কৃত ।

ক্রিয়ুক্ত ডাক্তর উইথকম সাহেব ।

সিভিল চিকিৎসক সমীপেষু ।

চলিত বর্ষে বসন্ত রোগ কর্তৃক সমূহ প্রাণির প্রাণ হানি হওয়া বসন্তঃ কলিকাতা মহানগরিতে তৎ তত্ত্ববিধায়কতায় যে সভা সংস্থাপন হইয়াছে ঐ সভাসদ মহাসময়গণ প্রাপ্ত রোগের সান্তি ও নিবৃত্তি করনাকাঙ্ক্ষায় বসন্ত উৎপত্তির ও তাহা বীজিত হওনেরও তদনন্তর তদ্বারা সচরাচররূপে জন পদের মৃত্যু সংঘটন হওয়ার মূল কারণ অবধান জন্য ও বঙ্গ দেশে বসন্তের টিকা দেওয়ার প্রাচীন প্রণালী অপারন সাধারণ মধ্যে অদ্যাপিও প্রচলিত আছে কিম্বা ঐ রিত্যানুসারে কেহ টিকা দেওয়া ক্ষন্ত আছে কি না এবং এইক্ষণকার মতাচরনের টিকা দেওয়ার রীতি প্রচার হইলে বাঙ্গালি বর্গেরা তাহাতে সম্মত কি অসম্মত ইত্যাদি বিবরণে এখাকার ক্রিয়ুক্ত সিভিল চিকিৎসক

সাহেব সমীপে প্রশ্ন চতুষ্টয় প্রেরণ করিবার তাহা অসম্ভব।
সম্মিধানে সমাগত হইয়াছে কিন্তু তদন্তর বিশেষরূপে বর্ণনা
করা আমাদের পক্ষে সম্য প্রকার শুকটিন যেহেতু তাহাতে
পরিণাম দর্শিতা ও বিশেষানুসন্ধান করা সর্ব্বতাভাবে প্রয়োজনীয়
তথাচ অসম্ভব স্বং বিবেচনায় যে কিঞ্চিৎ উপলব্ধি হইল তাহা
নিম্নে নিখিতেছি প্রার্থনা যে অশুদ্ধ সংশোধন করিতে আজ্ঞা
হইবেক।

Replies to Questions, by the respectable Baboos resident in Darjeeling, through Dr. Withecombe.

প্রথমত বসন্ত উৎপত্তির বিষয়ে এইমাত্র বক্তব্য যে
ওলাউটা যে কারণ বসন্ত উপস্থিত ও প্রকাশ হয় বসন্ত ও
তদপ্রায় কেননা উভয়ই বৎসরের এই রিতুতে প্রকাশ হইয়া
সম পরাক্রমে স্বং বলবীৰ্য্য প্রবিস্তার করিয়া থাকে দ্বিতীয়ত
বাজালি টিকাকারদিগের অজ্ঞতা যেহেতু টিকা দেওয়ার ও
বসন্ত প্রকাশ হওয়ার যে মূল কারণ বীজ তাহা ব্যক্তি বিশেষে
বাজালি টিকাকারেরা প্রভেদ না করিয়া সর্ব্বসাধারণ মধ্যেই
এক বীজ ব্যবহার করিয়া থাকে যথা বয়ঃপ্রাপ্ত মনুষ্যদিগের
অঙ্গজ বীজদ্বারা বালক বালিকাদিগকে টিকা দিলে সহজেই
সে বীজ তাহাদিগের পক্ষে অত্যন্ত অসহ্য। এতদ্রূপ
অহিতাচরণ দ্বারা প্রায়স জনগণের মৃত্যু সংঘটন হওয়াসম্পাদিত
দৃশ্য হইতেছে শুতরাং পল্লীগামস্থ ব্যক্তিগণ গোবৈদ্য বাজালি
টিকাকারদিগের হস্তে আত্ম সমর্পণ করিয়া যমালয় যাইয়া
থাকেন। বসন্ত উৎপত্তি হইয়া বীজ হওয়ার কারণ আমরা
এই পর্য্যন্ত উক্তি করিতে সক্ষম যে কোন পরিবারের মধ্যে
কোন ব্যক্তির বসন্ত প্রকাশ হইলে পরস্পর স্পর্শাঙ্গশে
ক্রমশ পরিবারের মধ্যে বীজ হইয়া থাকে।

আয়ুর্বেদ সাস্ত্রানুসারে বাজালিদিগের মধ্যে টিকা দেওয়ার
প্রাচীন প্রণালী যাহা অদ্যাপিও সর্ব্বসাধারণ মধ্যে সর্ব্বস্থানে
সর্ব্বভাবে অনিচ্ছচরিত্রপে প্রচলিত আছে তদপ্রতি কদাপিও
আমরা দোষারোপ করিতে পারি না কেননা অপ্ৰকাশ নহে
যে পূর্ব্বকালে উপরোক্ত সাস্ত্র সম্মত রিত্যানুসারে বসন্তের টিকা
দেওয়ার যে রীতি ব্যবহৃত ছিল তদ্বারা কুচিতাংশে এত অধিক

Replies to Questions by the respectable Baboos resident in Darjeeling, through Dr. Withecombe.

প্রাণির প্রাণ হানি হওয়ার সম্ভাবনা ছিল না এ বিষয়ে আমরা অবশ্য কৃতজ্ঞতা স্বীকার করিতে বাধ্য আছি ফলিতার্থে উক্ত মাস্তুর রিতী মীতী বর্তমান সময়েও মতান্তর হয় নাই কেবল বাঙ্গালি টিকাকারদিগের তদপ্রতি অনবধান প্রযুক্ত তাহার দিগের অন্যায় চিকিৎসায় ব্যক্তি বুঝির প্রাণান্ত হয় তাহার সন্দেহ নাস্তি।

বঙ্গ দেশের তাবৎ প্রদেশেই বসন্তের টিকা দেওয়ার প্রাচীন রিতী অদ্যপি প্রচার আছে যদিও ইঙ্গরেজী মতের টিকা দেওয়ার রিতী আমাদিগের প্রাচীন রিতী অপেক্ষা অগুণ্য এ শ্রেষ্ঠ বটে কিন্তু কলিকাতানগরীয় ব্যক্তিরাই তাহার বিশেষ ফলাফল জানিয়াছেন পল্লীগুমস্থ ব্যক্তিরাই ইঙ্গরেজী মতের টিকা দেওয়ার রিতী ও তাহার চিকিৎসার প্রণালী ও মর্দ জাতিয় ব্যক্তিদিগের মধ্যে বিনা আপত্ত্যে তাহা ব্যবহার্য্যনীয় কি না ইত্যাদি কিছুই জানিতে পারেন নাই এমতস্থলে মহা তাহা-দিগের পৌরানিক রিতী কিরূপে দূরীকৃত করিতে ও নূতন রিতীর মতাবলম্বনের কার্য্য করিতে পারেন। ইঙ্গরেজী টিকা দেওয়াতে পুনঃপুন বসন্ত প্রকাশ হওয়া ইত্যাদি আমাদিগের অন্তঃকরণে যে সন্দেহের মূল ছিল তাহা চিকিৎসা ও অন্যান্য উদাহরণ দৃষ্টে ভঞ্জন হইয়াছে বরং কদাপিও ইঙ্গরেজী মতের চিকিৎসার দ্বারা এক প্রাণির ও প্রাণ হানি হওয়া জনশ্রুতি দ্বারা শ্রুত হওয়া যায় নাই এমতবস্থায় গবর্নমেন্ট বাঙ্গালিদিগের মধ্যে অচিরাৎ ইঙ্গরেজী মতের টিকা দেওনের রিতী প্রচার করিলে বঙ্গ ভূমির দুর্ভাগা প্রজাদিগের অসীমোপকার দর্শিবেক ও তত্ত্বাবধারক সভাসদ মহাশয়গণ জনপদের অশেষ ধন্যবাদের পাত্র হইবেন অধিকান্ত আমরা ব্যগুপুর্ষক গবর্নমেন্ট সমীপে প্রার্থনীয় ইঙ্গরেজী মতের টিকা দেওয়ার রিতী মতুরা প্রচলিত পুরঃশর বাঙ্গালি অজ্ঞ গোবৈদ্য দিন কর্তৃক যে অগণ্য প্রাণিবর্গের ধ্বংস হইতেছে তাহা ক্ষান্ত করিতে উৎসাহান্বিত হউন কিমধিকং নিবেদন ইতি সন ১৮৫০ সাল তারিখ ৭ আপ্রিল।

TRANSLATION of the foregoing by the REV. J. WENGER.

*Translation of the
foregoing by the Rev.
J. Wenger.*

In consequence of the great mortality caused this year by the Smallpox, the Committee which has been appointed at Calcutta for the purpose of enquiring into this subject, being anxious to promote the abatement and cessation of that disease, with a view to ascertain the real cause of the origin and diffusion of Smallpox and the extensive mortality occasioned thereby, have forwarded to the Civil Surgeon of this Station four questions as to whether the ancient Bengali method of inoculating is still in universal use, or whether any persons have abandoned that practice of inoculating, and whether, if the modern method* of Inoculation were made known, the Bengali people would oppose it or not. Those questions have reached us but we find it extremely difficult to reply to them at length ; for to do so requires great prudence and enquiry into details. Nevertheless we write below the opinions at which we have arrived, after consideration. Have the goodness to correct any errors.

First as to the origin of Smallpox ; all we can say is that it appears to arise from causes very similar to those of the origin and manifestation of Cholera ; for both diseases make their appearance at the same season of the year, and extend their effects with equal strength. A second cause is the ignorance of the Bengali Inoculators ; for the *seed*† which is the radical cause of Smallpox both by Inoculation and by natural appearance is applied by Bengali Inoculators to all sorts of persons indiscriminately. Thus they inoculate little boys and girls from *seed* taken from the body of a full grown person, whereas that seed is more powerful than they can bear. It is palpably evident that from such a pernicious method the death of almost a whole community must ensue ; consequently by entrusting themselves to such Bengali Inoculators who are quacks,‡ the inhabitants of country places enter upon a journey to the palace of Yama.§ As to the spread of the Smallpox when it has once made its appearance, all we can say is that when one member of a

* Meaning Vaccination.

† Original, *bij*. My pundit, who is himself a Native Doctor, tells me this is a technical term for the *fluid* or *virus* preserved by dipping cotton into it. Hence the literal rendering by *seed*.

‡ Literal, *Cow-doctors*.

§ The Indian Pluto.

*Translation of the
foregoing by the Rev.
J. Wenger.*

family has been seized with it, it is gradually diffused over the whole family by mutual contact.

As to the ancient method of Inoculation, derived from the *Agurveda*,* which among the Bengali people prevails universally everywhere to an undescrivable extent, we cannot find any fault with that, for it is well known that in former times no such extensive loss of life ensued anywhere from the current practice of inoculating, as enjoined in the said shastra. For this it is clearly our duty to be thankful. And, indeed, the method prescribed in that shastra has not been changed up to the present day ; but it is simply owing to the preposterous treatment of the Bengali Inoculators who pay no attention to it, that such masses of people come to an untimely end ; of this there can be no doubt.†

The ancient method of Inoculation prevails to this day in every part of Bengal. The English method‡ of Inoculation is preferable and superior to our ancient method ; but it is only the inhabitants of Calcutta that have been able to become acquainted with its merits ; the people in the country districts have not had an opportunity of learning the English method of inoculating, nor the mode of its treatment, nor its safe applicability to persons of all classes,§ &c. In such places how can they forsake their ancient|| method, and adopt the modern one ? We formerly entertained strong doubts, lest with the English method the Smallpox should recur frequently ; but from observing the treatment and various examples those doubts have been removed ; nor have we even, from common report, heard of a single instance of loss of life ensuing from the English method. Under such circumstances, if the Government, without delay, introduce the English method of Inoculation, the unhappy inhabitants of Bengal will reap a benefit of unbounded magnitude, and the Committee appointed for that purpose will be overwhelmed with the countless blessings of the community. Finally, we entreat the Government to bestir itself that, by the speedy introduction

* The most revered Medical Shastra.

† My Pundit tells me that these Inoculators are all persons unacquainted with the Native Books on Medicine.

‡ By Vaccination.

§ Castes.

|| Literally, *derived from the Puranas*.

of the English method of Inoculation, it may put a stop to the boundless destruction of life now occasioned by the Bengal quack inoculators. What else have we to say?

Translation of the foregoing by the Rev. J. Wenger.

(Signed) SRI TARAKESHWAR SHARMAN.
 „ SRI TARINI SHANKAR SHARMAN.
 „ SRI KRISHNANATH BANDHOPADHYAYA.
 „ SRI KALIKUMAR DATTA.
 „ SRI GURUDAS BANDHOPADHYAYA.
 „ SRI GOPAL CHANDRA DAS.
 „ SRI RAM CHANDRA BASU.

April 7th, 1850.

FROM ASSISTANT SURGEON A. MACLEAN, *Gowahatty*,
 To D. STEWART, Esq., M. D.,
Supdt. Genl. of Vaccination, Calcutta.

*Assistant Surgeon
 A. Maclean to D.
 Stewart, Esq., M. D.,
 dated 7th May, 1850.*

Dated 7th May, 1850.

SIR,

I have the honor to acknowledge the receipt of a letter from you calling for information upon various points relating to Smallpox, and I beg to apologise for the delay which has taken place in replying to it; the reason being that in the hurry of my professional engagements which for the last month have occupied all my time, I inadvertently laid it aside, and came upon it by chance only a few days ago. Since then I have instituted enquiries amongst the most respectable of the Hindoo community, both in the Station and in the neighbourhood, and from the information derived from them as well as from all other sources upon which I considered I could rely, I am now able to answer (I trust) satisfactorily the greater part of the questions contained in your letter.

2. From the result of my investigations both among the Natives and in other quarters, I have not in mind the slightest doubt that on every occasion Smallpox *originates*, here, as in the surrounding country, from Inoculation. Last January and ever since we have had a few cases of the disease in Gowahatty, and the origin of all these was Inoculation beyond a doubt; for in the beginning of the month, just mentioned, I received information that four *Ticcadars* had arrived from Bengal and established themselves in the lines of the Regiment, where they had inoculated several children, and were, at the time the report

*Assistant Surgeon
A. Maclean to D.
Stewart, Esq., M. D.,
dated 7th May, 1850.*

was made to me, plying their occupation with great assiduity and success. I spoke to some of the authorities about having them turned out of the Station, but they seemed to consider, that as a nucleus had been already formed, from which the disease would certainly spread, such a course was at the eleventh hour, unnecessary. Accordingly the *Ticcadars* were suffered to remain, and in a very short space of time all the children were inoculated.

A few days after their arrival *the first case of Smallpox occurred in the Lines*, and I concluded at the time (and still adhere to that opinion) that the most natural way of accounting for its appearance in this case was by supposing that the individual had caught it by contagion from some of the children into whose system it had been artificially introduced. There were several other cases of the same kind subsequently, and two or three deaths occurred, but not one of the children who were inoculated died.

As regards the putting down of this practice by legislative enactment, I think there can be no doubt that it would be productive of the best effects provided the Natives could be persuaded to adopt Vaccination in its stead; but as the mortality from Inoculation is very small, and as it affords great protection from Smallpox for the future, it remains to be considered whether the present prejudices of the people against Vaccination could be overcome in a reasonable space of time; as if they continued determined to have nothing to do with it, they (or rather their children) would be totally unprotected from the disease in the event of its appearing as an Epidemic and the consequences would be dreadful. In a retired spot like this there can be no doubt that if there were no *Ticcadars* there would be no Smallpox, and the passing of a law forbidding the practice of Inoculation, under heavy penalties, would be highly beneficial, but this would not apply equally to other localities which numbers of people frequent. In these cases the most disastrous consequences would, in all probability, result from leaving the children unprotected, and as the mortality from Inoculation is next to nothing, the considerations just mentioned would require to be carefully weighed against each other before coming to a decision upon this question.

With regard to the opinions of the leading men, among the Hindoos at this Station and in its vicinity upon the subject of Inoculation, I need only say, that notwithstanding all my endeavours to overcome the prejudices of the people I succeeded in getting only about a dozen

children vaccinated during the last six months, and none of these were of respectable parentage (I mean that they were the children of poor people) while the *Ticcadars* were extensively flattered and patronized by all classes of individuals.

*Assistant Surgeon
A. Maclean to D.
Stewart, Esq., M. D.,
dated 7th May, 1850.*

2. I regret that from the absence of all such records as are mentioned in para. 2nd of your letter, I am unable to furnish the required information; but I hope in future, to be able, to make at least an approximation to the degree of mortality from the disease both in the Station and throughout the district.

3. During last cold season three men in this Station, for a short time, no fewer than four *Ticcadars*, but two of them went, about three months ago up to Tezpore (about 80 miles from this up the river) and the other two remained here, where they still are. Besides these, I have received authentic information of six men being in the district, and I understand that these individuals come up from Bengal annually at the commencement of the cold season and ply their vocation over the greater part of the country in the neighbourhood until May when they return to their houses, and visit this province again at the usual period. I have not heard of any fatal results from Inoculation for the last two years in Gowahatty. During the last four months, there were several hundreds of children operated on, but not one death occurred, as I have already mentioned.

4. The results of Vaccination in this Station for the last five months I have given above, as on my arrival, I found no records connected with it. I regret that I cannot furnish you with the table required. I may mention, however, that my predecessor has experienced as much difficulty in persuading the people to substitute Vaccine lymph for the Smallpox virus as I have, and the absence of any documents of the nature just referred to, may be easily accounted for, by supposing, as was really the case, that there were no returns to shew. Under such circumstances it is but natural to suppose that the public opinion has been but little influenced in favour of this invaluable agent. I cannot say exactly *how far* there has been an improvement in this respect, but judging from the sentiments which they expressed upon the subject at present I should be very much inclined to suppose that matters stand in this respect exactly as they did five years ago. By the accompanying answers to the questions contained in the paper which accompanied your letter, the Committee will be able to see to what extent the opinion which I have expressed on the subject is correct.

*Assistant Surgeon
A. Maclean to D.
Stewart, Esq., M.
D., dated 7th May,
1850.*

5. All the information which I have been able to collect I have embodied in the preceding remarks, but the shortness of my residence here, and the impossibility of obtaining accurate information on various subjects connected with the origin of this disease, the mode in which it spreads, the extent to which it prevailed, the mortality from it, and various other particulars regarding it, renders any thing which I can say upon the subject of little value. I have, however, spared no pains in collecting information from the most trust-worthy sources, and I have only to regret that it has, notwithstanding, proved so scanty and unimportant.

I have the honor to be, &c.,

(Signed) A. MACLEAN, *Assistant Surgeon,
In Medical Charge, Gowahatty.*

GOWAHATTY, }
7th May, 1850. }

*Questions put to
Baboos C. Mohes
Chunder, Deohur Doly,
Chunder Sein and
Juggernat of Gowahatty.*

QUESTIONS put to BABOOS C. MOHES CHUNDER, *Deputy Collector, Gowahatty*; DEOHUR DOLY, *Sudder Ameen, Gowahatty*; CHUNDER SEIN, *Principal Sudder Ameen, Gowahatty*; and JUGGERNAT, *Moonsiff, Gowahatty*.

1st.—Do you know any instances of the Smallpox being introduced into a family by a *Ticcadar*, and the disease thereafter propagating itself and producing death or deaths in the family?

I believe such an occurrence takes place but very seldom. I know of only three or four families in which the disease was propagated and produced death. This year only one instance of this nature has occurred to the best of my knowledge.

2nd.—Name any number of respectable Hindoo families, from your own knowledge, in Gowahatty, who now adopt Vaccination and discourage Inoculation, by precept and example.

There are none. The whole of the population encourage the Bengali *Ticcadars*, in preference to the Vaccinators. The reason they assign for so doing is that Vaccination is no protection against the Smallpox; at all events it is very uncertain, for in the year 1834-35 some children who were vaccinated caught the latter disease and died of it. Since then they have always been opposed to Vaccination.

3rd.—Name any respectable Hindoo families who still prefer the old practice of Inoculation and who discourage Vaccination?

All of them do so without a solitary exception.

4th.—What do you think are the chief causes which tend to set up Smallpox among the Hindoos of Gowahatty, and to promulgate it in certain localities ?

My opinion is that Smallpox in every instance propagates itself. I do not believe that the disease, when it appears as an Epidemic, ever takes its origin from Inoculation.

The opinions expressed in the answers given to the foregoing questions are those of the whole Hindoo community ; and taking this into consideration the want of success which has hitherto attended the means used for the introduction of Vaccination will no longer be matter of surprise.

FROM DR. C. HORTON,

Civil Assistant Surgeon, Tipperah,

TO J. FORSYTH, ESQ.,

Member, Special Committee on Vaccination.

Dated 15th May, 1850.

SIR,

I have the honor to report, with reference to your letter to my address concerning the “diffusion of Smallpox in this district by Inoculation,” that I gave the following questions to Baboo Intochunder Chatterjea, Deputy Collector, whose answers I now give.

1. Do you know any instance of the Smallpox being introduced into a family by a *Ticcadar*, and the disease thereafter propagating itself and producing death or deaths in the family ?

Answer.—I have known many such cases.

2. Name any number of respectable Hindoo families from your own knowledge who now adopt Vaccination, and discourage Inoculation, by precept and example ?

Answer.—I encourage Vaccination in my own family, but do not know any other family in this neighbourhood who also encourages it.

3. Name any respectable Hindoo families who still prefer the old practice of inoculating, and who discourage Vaccination.

Answer.—The Magistrate’s Sharistadar, the Dewan of the Rajah of Tipperah, and numberless others.

4. What do you think are the chief causes which tend to set up Smallpox amongst the Hindoos of Tipperah and to maintain and promulgate it in certain localities.

Answer.—Inoculation.

Questions put to Baboos C. Mohes Chunder, Deohur Dolly, Chunder Sein and Juggernat of Gowahatty.

Dr. C. Horton to J. Forsyth, Esq., dated 15th May, 1850.

*Dr. C. Horton to
J. Forsyth, Esq.,
dated 15th May, 1850.*

<i>Thannahs.</i>	<i>No. of Ticcadars.</i>
Juggernath Diggy,	20
Bhurumpta,	12
Hapjunge,	10
Toolikghijral,	13
Hutwalli,	88
Goureeparra,	12
Thorlah,	46
Lakshan,	25
Mussimryar,	14
Cushbah,	33
Chajulnanah,	34
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There is one other thannah from which (from press of Police business in that district—Daodemdie) accounts have not been received, but the Magistrate has grounds for believing that there are about 27 in that place, making 334 *Ticcadars* in all the thannahs in the Tipperah district. With regard to a daily or weekly register of the deaths caused by Smallpox, the Magistrate states it as impossible, owing to the want of leisure of the Mofussil Police; “he is also unable to furnish returns for past casualties no registers of the kind having been kept.” From what I have been able to glean amongst the Natives (by the assistance of the Magistrate) Vaccination is considered equally as sure a preventative of Smallpox as Inoculation and much more safe, but the Natives think that it requires to be received periodically all through a man’s lifetime, whereas Inoculation (they say) saves all further trouble, and that the Native Residents in the Mofussil could not spare time to be frequently running into the Station for that purpose, yet the interrogated could not explain why, when Vaccinators were stationed in the district formerly, they were not more generally resorted to.

There is no religious prejudice against Vaccination apparently.

The Baboos whose answers I have given above agree with myself and others, that legislative enactment enforced against Inoculators would be the surest step towards ameliorating if not of preventing the Smallpox.

I have the honor to be, &c.,

(Signed) C. HORTON, M. D.,

TIPPERAH,
May 15th, 1850. }

*Civil Assistant Surgeon,
Tipperah.*

FROM DR. T. A. WISE,
Civil Surgeon, of Dacca,
 TO GEORGE LAMB, Esq.,
Physician General.

*Dr. T. A. Wise to
 George Lamb, Esq.,
 dated 27th March,
 1850.*

Dated 27th March, 1850.

SIR,

I had the pleasure of receiving your letter, dated the 15th instant, requesting information as to the causes and extent of the ravages of Smallpox in this neighbourhood, and the means of checking it, and have pleasure in forwarding the following few remarks.

2. The cause of the annual appearance of Smallpox over Bengal is sufficiently explained by the regular appearance of the *Ticcadars*, or *rarees*, arriving from the "*rar dash*" or places devoted more particularly to the worship of the Goddess *Situla*; such as Moorshedabad, Kishnaghur and Nuddea, Santipore, Tripeny, Hooghly, &c., armed with the Smallpox virus, to inoculate children: thus introducing annually the natural Smallpox over the country. It was introduced into the Mauritius and in six weeks carried off 5,400 persons, since then it has been unknown from the strict enforcement of the quarantine laws.

3. Such is the dread of the natural Smallpox that a large proportion of the people of this part of India are defended from its attacks, by Inoculation.

In the district Jail there are at present 785 prisoners, of whom only

In the Jail 29 had natural Smallpox; 27 were unprotected and 729 had been vaccinated, inoculated, or had had Smallpox.

Insane Asylum 6 have had benign Smallpox; 45 were unprotected and 157 had been vaccinated, inoculated, or had had Smallpox.

27 I found unprotected; and in the Insane Asylum 208, of whom 30 men and 15 women were unprotected. The above may be considered a large proportion of protected persons

when we consider the apathy of the Native character of all ranks, on which account many are left unprotected and great numbers are attacked with the natural Smallpox, and I have reason to believe from 15 to 20 per cent. of these perish annually.

4. When the people are less generally protected as in the hill districts of Tipperah, the mortality is very much greater. Thus in the history of the Tipperah family I find that between the 15th and 18th century out of sixteen Maharajahs five died of Smallpox. This number mentioned in the family history may be relied on; from its

*Dr. T. A. Wise to
George Lamb, Esq.,
dated, 27th March,
1850.*

militating against themselves, as it indicates the wrath of the daughter of their cherished God *Siva*, whom they are always so desirous of conciliating. If so many of the Rajahs have been carried off by Smallpox it is probable that the poor, so much more exposed to its ravages, must have suffered in a still greater degree. It is recorded that the return of the Epidemic is much dreaded, and that it sometimes nearly depopulated the country.

5. The disease still raging here—first appeared in December last, in a low part of the City (beyond the Sugar Works,) and gradually extended westward, against the course of the river, and direction of the prevailing wind. It created such dread that many had recourse to Inoculation, and thus the disease was carried into almost every house throughout the city, and vast numbers of the inhabitants have been destroyed by it. I am endeavouring to make out a return of these cases, and of the mortality that has ensued; and hope to be able to give the result in my annual report.

6. Dr. Row, the Superintending Surgeon of this Division, informs me that the Smallpox appeared suddenly in January last, in the lines of the 2nd Assam Light Infantry at Gowahatty, and spread rapidly among the women and children; on enquiry it was found to have been introduced by a Brahmin Inoculator. The disease spread rapidly in the neighbourhood, but did not appear at that time in any other part of Assam. The Commissioner could not prevent the *Ticcadars*; but where the country is more isolated, as the Cossia Hills, Smallpox has been kept out for years, by strictly prohibiting Inoculators, and when discovered they have been immediately turned out of the hills. In this way they have escaped Smallpox for many years, and this appears the only way of preventing the propagation of the disease.

7. The immense advantages of Vaccination have been most satisfactorily proved; and it is worthy of record that in the Madras Army every recruit requires to be vaccinated. The effects of this have been so remarkable here, that though the Epidemic has been raging all round, not a Sepoy of the 34th Regiment of Madras Native Infantry, 800 strong, has been attacked by virulent Smallpox, whereas a Golan-dauze and a Regimental Coolie, who had not been so protected, were both attacked with confluent Smallpox, and both died.

8. We certainly require a more trust-worthy class of Vaccinators. In one case, I was surprised to find a considerable degree of fever, and an eruption in a man of some consequence, who had been vaccinated

and found that at his own urgent request a small quantity of Smallpox matter had been mixed with the Vaccine lymph, to produce a degree of fever, and a few pustules, without which this Vaccination was not supposed to protect the individual. The most obvious means of preventing this, appears to be to employ the students of the Medical College and Dressers and Assistants of the Dispensaries and Hospitals, assisted, as they will be, by the cordial and the powerful efforts of the Medical Service.

*Dr. T. A. Wise to
George Lamb, Esq.,
dated 27th March,
1850.*

9. Of forty-four residents of Dacca, who requested to be vaccinated during the present Epidemic, after their having been vaccinated in Europe, in their younger years, only one took very well, the others more or less imperfectly, probably according to their habit of body ; proving, with one exception, that they had passed through Vaccination, and that consequently their bodies were defended from the influence of the Smallpox. This likewise proved that age had no effect, and when once a person was properly defended by Vaccination, they were safe for life.

10. The immense advantage of Vaccination, therefore, should be more generally known and introduced. The only difficulty being the aversion the Hindoos have to all innovation, as it is believed that they have merely a greater degree of faith in Inoculation than Vaccination. Inoculation, therefore, should be prohibited by law for the following reasons.

1st.—Because such a law exists in England, and has been found so useful that it has been introduced into most of the States of Europe.

2nd.—Because the cause of humanity loudly calls for such a law, and which, if strictly enforced, will save the lives of thousands annually.

11. This law should have effect over the whole length and breadth of the empire and not be confined, as I am given to understand it is intended, to the Cities, many of the daily sojourners in Cities live in the neighbouring villages ; 100,000 daily go out and come into Calcutta, and no restricted law would prevent the spread of Smallpox disease in Cities. It is also a common practice to send children to the country when they have the advantage of going to their homes and to a cooler retreat when inoculated, and with the intention of removing from the place of danger when the disease is raging in the towns. Thus any restricted enactment would not have the desired beneficial effect, and I conceive it would be no hardship strictly to prohibit Inoculation, and giving, through the Medical Establishment, the fullest means to bring Vaccination to every hamlet within the Hon'ble Company's possessions.

12. The accompanying translation of the Native Mythological History of Smallpox was prepared at the time of an Epidemic, thinking it

*Dr. T. A. Wise to
George Lamb, Esq.,
dated 27th March,
1850.*

might be of use in printing it, to expose the absurd prejudices and draw attention more strongly to Cowpox Inoculation. The idea was given up after the Epidemic, at the time raging, had passed away, and I only again thought of it after receiving your letter. I have added to the translation a few lines of my own as a P. S., and leave you to make such use of it as you think proper.*

I have, &c.,

(Signed) THOS. A. WISE, M. D.,
Civil Surgeon.

*List of respectable
Hindoo residents of
Dacca, &c.*

LIST of respectable HINDOO residents of DACCA and its NEIGHBOURHOOD, who vaccinated their Children in preference to Inoculation, during the last Spring.

Number of Children.	Names of Fathers or Guardians.	Occupation.
2	Gungadhur Banorjea,	Zemindar.
1	Kishen Chunder Banorjea,	Ditto.
3	Basheeram Paul,	Servant.
1	Radhakaunth Chuckerbutty,	Ditto.
1	Soorjnarain,	Zemindar.
2	Caleenarain Roy,	Ditto.
2	Manick Potdar,	Mahajun.
1	Nobin Saha,	Ditto.
1	Kistocaunth Takoor,	Jajmanee.
1	Cheedam Potdar,	Mahajun.
2	Kistochurun Saha,	Ditto.
1	Ramchurun Saha,	Ditto.
2	Roopchunder Saha,	Ditto.
3	Mudon Potdar,	Potdar.
1	Budeenath,	Ditto.
3	Kistopersaud Saha,	Ditto.
1	Soorj Mohun Saha,	Ditto.
2	Huray Gobind,	Collector's ditto.
1	Rauj Chunder Saha,	Potdar.
2	Gooroopersaud Saha,	Ditto.
2	Sonatun Saha,	Ditto.
1	Seebchurn Sirma,	Jajmanee.
1	Mudun Sirma,	Ditto.
3	Boodhoo Saha,	Potdar.
1	Horee Mohun Saha,	Cloth Seller.

* This curious and interesting Memoir has been returned to the Author, its great length rendering its publication in this place objectionable.

Number of Children.	Names of Fathers or Guardians.	Occupation.
1	Madhub Saha,	Potdar.
1	Gopaul,	Pusaree.
3	Bishenauth,	Mahajun.
1	Munnoo Saha,	Ditto.
1	Rughoonauth Saha,	Ditto.
1	Mudhoosoodun Saha,	Ditto.
1	Kistocoomar Saha,	Cloth Seller.
1	Gour Neetye Saha,	Mahajun.
1	Beharee Lall Saha,	Ditto.
	Baroo Saha,	Ditto.
	Canye Saha,	Ditto.
	Suroop Chand Saha,	Ditto.
	Gour Bunik,	Pusaree.
	Bishenauth,	Mahajun.
	Goluck Doss,	Byragy.
	Anund Doss,	Ditto.
	Ramkaunth,	Goshye.
	Gooroochurun,	Talookdar.
	Oodhul Baboo,	Mahajun.
	Bhugwan,	Darogah.
	Woomakaunth Roy,	Dewan.
	Neelmoney Baboo,	Ditto.

*List of respectable
Hindoo residents of
Dacca, &c.*

DACCA, } (Signed) THOS. A. WISE, M. D.,
22nd May, 1850. } *Civil Surgeon, Dacca.*

LIST of respectable MUSSULMAN residents of DACCA and its
NEIGHBOURHOOD, who vaccinated their Children in preference
to Inoculation during the last Spring.

*List of respectable
Mussulman residents
of Dacca, &c.*

Number of Children.	Names of Fathers or Guardians.	Occupation.
2	Moulvee Abdool Ally,	Zemindar.
4	Mirza Mendee,	Ditto.
8	Meer Mahomed Tukee,	Ditto.
3	Abdool Ally,	Ditto.
3	Khazey Alumullah,	Ditto.
2	Khazey Abdool Guney,	Ditto.
5	Juckey Chowdry,	Ditto.
3	Abdool Hossein,	Ditto.
3	Kudum Meah,	Ditto.
5	Amjud Meah,	Ditto.
10	Wewab Meer Saheb,	Ditto.

DACCA, } (Signed) THOS. A. WISE, M. D.,
22nd May, 1850. } *Civil Surgeon, Dacca.*

Number of Ticcadars in the City and neighbourhood of Dacca.

NUMBER of TICCADARS at present inoculating with Smallpox Virus, in the City and neighbourhood of Dacca.

Names.	Whence they come from.
Oochul,	Moorshedabad.
Koylass,	Ditto.
Khettur,	Ditto.
Rampersaud,	Mymensing.
Ram Mohun,	Ditto.
Nobina,	Dacca.
Ghamara Chung,	Ditto.
Pudo,	Ditto.

(Signed) THOS. A. WISE, M. D.,
Civil Surgeon, Dacca.
 Dacca, }
 22nd May, 1850. }

Table shewing the number of persons vaccinated by the Civil Surgeon and four Vaccinators of Dacca.

TABLE shewing the number of persons vaccinated by the Civil Surgeon of Dacca, and four Native Vaccinators in the City and neighbourhood of Dacca, during the last five years.

Months.	1845.	1846.	1847.	1848.	1849.	Total.
January,	154	260	325	334	395	1468
February,	184	444	313	403	545	1889
March,	205	409	452	453	509	2028
April,	126	312	548	440	653	2079
May,	167	281	565	409	649	2071
June,	164	233	503	225	453	1578
July,	185	250	528	321	343	1627
August,	188	236	359	355	356	1494
September, ...	212	213	294	369	333	1421
October,	157	268	327	320	512	1584
November, ...	205	278	345	351	349	1528
December,	275	280	255	394	501	1705
Total,...	2222	3464	4814	4374	5598	20472

(Signed) THOS. A. WISE, M. D.,
Civil Surgeon, Dacca.
 Dacca, }
 22nd May, 1850. }

No. 80.

FROM DR. JAMES ALLAN,

Civil Assistant Surgeon, Bhaugulpore,

TO DR. D. STEWART,

*Superintendent General of Vaccination,**Dated 5th April, 1850.**Dr. James Allan to
Dr D. Stewart, dated
5th April, 1850.*

SIR,

In accordance with your Circular of the 18th March, 1850, I have the honor to offer the few following remarks on the Epidemic Smallpox which has lately visited Calcutta and its neighbouring towns.

1st.—With the exception of one case of confluent Smallpox which was left at this Station by a passing Steamer proceeding to the Upper Provinces, and in which there can be no doubt that the seeds of the disease were generated in Calcutta, the Epidemic Smallpox has not yet reached this district, though doubtless, as is usual at this season of the year, Smallpox, to a certain extent, prevails. There can be no doubt, from Smallpox invariably breaking out in the month of March in this Station, in which month *Ticcadars* are publicly known to be pursuing their avocation in the bazars, that the disease is kept up if not originally introduced by the practice; and there can be little question that as long as *Ticcadars* are permitted to carry and disseminate, from village to village, the seeds of so fatal and terrible a disease, so long will Smallpox commit its fearful ravages. During the past month at least a dozen *Ticcadars* made their appearance in the bazars of this Station, and were duly reported by my Vaccinator. A report was immediately sent to the Magistrate requesting that they might be turned out, or a stop put to their malpractices. The Magistrate immediately complied with my request; since which time, no others have made their appearance.

From enquiries I find that regularly every year about the month of February, *Ticcadars*, from various districts, have arrived at this Station and commenced their baneful practice, and the consequence has been that Smallpox has been present to a greater or lesser extent. This year, in consequence of the steps that were taken to prevent their carrying the infection, only one or two cases are at present known, and the Jail and Regimental Hospitals are entirely free from it. I regret to say the Magistrate is unable to furnish me with any information as to the mortality from the disease, for this, and the past years, as the deaths, from Smallpox in the villages or towns, are not specified, excepting under

*Dr. James Allan to
Dr. D. Stewart, dated
5th April, 1850.*

the head of natural causes. I can only give but an unfavourable report of Vaccination as carried on here. Monthly not more than 16 or 18 patients can be procured, and my Vaccinator reports that it is with the greatest difficulty he can procure these few. Enquiry shews that their objections to it are solely on account of religious ideas. I beg to enclose the answers to the questions forwarded with your Circular.

I have the honor to be, &c.,

(Signed) JAMES ALLAN,
Civil Assistant Surgeon.

BHAUGULPORE,
Civil Asst. Surgeon's Office, }
5th April, 1850.

*Replies to Questions
by Baboo Dwarkanauth
Chatterjee,
through Dr. Allan.*

REPLIES to QUESTIONS by BABOO DWARKANAUT CHATTERJEE,
Sub-Assistant Surgeon.

THROUGH DR. ALLAN.

1st.—As far as personal experience is concerned, I know no instance of the propagation of Smallpox among the members of a family by the contagion of Inoculation, and much less of death from it; but it is a common saying, among the Natives, that it most frequently breaks out in a family when some members of it are under the influence of Inoculation virus, and that instances of death from it are no rare occurrence. The fact of their not allowing children who have not previously imbibed the prophylactic to come in contact with those recently inoculated, is another sufficient proof of the possibility of Smallpox being propagated by it. Many of them believe that the fever and eruptions consequent upon Inoculation, are attended with more dangerous consequences than what Vaccination could produce. I recollect to have met, while in Calcutta, with two instances of death among children who were placed under my treatment for the cure of intense affection of the head arising from Smallpox after Inoculation. These fatal occurrences, I am glad to say, have convinced the parents of their folly, and of the great danger and less security afforded by Inoculation.

Answer 2nd.—Baboos Balkissen Matye and Ramrutton Ghose are, as far as my personal knowledge extends, the only two Hindoos of respectability here, who resort to Vaccination and have little or no faith in Inoculation. They seem to have judged rightly of the prophylactic

virtues of Vaccination, and appear always desirous of encouraging its adoption throughout the length and breadth of the district. Besides these, there are two other families at Bhaugulpore, who did once adopt Vaccination, but how far their conviction of its virtues extends, I have no personal experience to judge.

*Replies to Questions
by Baboo Dwarkanauth Chatterjee,
through Dr. Allan.*

Answer 3rd.—Almost all, or I may say with no exception, the respectable Hindoo families of this Station resort to the old practice of Inoculation, and have a deep rooted prejudice against the prophylactic virtues of Vaccination. To such an extent is their abhorrence to it carried, that they murmur even when the Magistrate renders assistance towards the dissemination of the more secure and less dangerous practice of preventing the occurrence of Smallpox. They consider that the paucity of the eruptions after Vaccination is not sufficient to purge out the *morbid humours* of the body, and would not listen to the proper *modus operandi* of Vaccination. The practice of the healing art, or in fact, every thing among the Hindoos is so blended with religion, that they consider a practice for which Poojahs cannot properly be given, or offerings be made to *Situla*, less secure and more susceptible of the recurrence of Smallpox. They are more afraid of the wrath of the goddess than of all the pestilence and contagion of the world combined together. Awful is the scene in a Hindoo family when certain members of it have been inoculated !

Answer 4th.—I have had no opportunity of witnessing any Epidemic prevalence of Smallpox at Bhaugulpore since the time I have been here, and consequently I cannot ascertain the cause that tends to set up Smallpox here ; but as it is a subject of professional investigation, I beg to offer a remark or two. Of all the characters of this exanthemata, its propagation by contagion, and its occurrence only once during a man's lifetime, are the two most prominent. To prevent therefore contagion, and to make the system imbued once with the virus, are the two safeguards against its occurrence. The natives here do resort to a prophylactic measure, but it is dangerous and less secure ; they do guard themselves from contagion, but the means they adopt to make themselves secure from its influence have not the power of so doing. These then are the two principal causes which, in my humble opinion, tend to keep up and disseminate Smallpox among them.

(Signed) DWARKANAUTH CHATTERJEE,

BHAUGULPORE, } *Sub-Assistant Surgeon.*
1st April, 1850. }

Dr. R. B. Kinsey
to D. Stewart, Esq.,
dated 10th April, 1850.

FROM DR. R. B. KINSEY,

Civil Surgeon, Tirhoot,

TO D. STEWART, Esq.,

Superintendent Vaccine, Calcutta.

Dated 10th April, 1850.

SIR,

I have the honor to acknowledge the receipt of your Circular of the 18th March, 1850, and beg to offer you the little information I have been enabled to collect.

2. The diffusion of Smallpox in this District is chiefly owing to the exertions of itinerant Inoculators, and as this mode of getting the disease meets with the views of the wealthy classes of the Native community, and no intrusion has been or will be permitted into their *zenana* apartments, it will continue unless put down by legislative enactment. The Inoculators are remarkably well paid and concealed in the houses where the Police dare not look for them without a search warrant, and every means a Native has at his disposal is used to blind the Police.

3. The Committee must be aware that however great their anxiety may be, and however practicable it may be in a town like Calcutta, it is utterly impossible to obtain any statistical account of births and deaths in a large rural District. There are no particular *ghâts* for the burning, or cemeteries for the burial, of the dead. An establishment to keep the register of casualties in each Pergunnah of this large District, would entail an expense Government would be little disposed to sanction, and a statistical return of this nature, unless strictly accurate, would be worse than useless. I will endeavour through the Magistrate to obtain the information required by your Committee, but fear that the return will be guess-work.

4. The Committee have imposed a task in their request to be informed of the number of Inoculators in this district which it is impossible to furnish. The *Ticcadars* here are all of the gardener caste, and there is hardly a village that has not been visited by them. They travel about singly and in small gangs of four or five, are welcome wherever they go, and propagate the Smallpox. If any casualties occur from Inoculation, (which I doubt) they are concealed, but there is no effort in the town to conceal deaths from natural Smallpox, I mean by the term *natural*, both spontaneous and that caught by infection or contagion. In 1849, the disease committed great ravages during

the four first months, but this year although there has been a great deal of Inoculation, it does not appear to have been so fatal in the town.

5. The annexed Table will shew the number of children vaccinated during the past 3 years. There are two Vaccinators employed and it is gratefully submitted to by the poor, and by a few of the richer people, by the poor because it costs them nothing, by the few of the better classes because they have in some measure overcome their prejudices. The rural population of the District are averse to any innovation and it has been with great trouble and perseverance, that, through the liberality of Government, Vaccination has been introduced.

I have the honor to be, &c.,

TIRHOOT, }
10th April, 1850. }

(Signed) R. B. KINSEY,
Civil Surgeon.

REPLIES to QUESTIONS at page xxvii, by DR. KINSEY.

Replies of Dr. Kin-

1. I know several cases where the disease has been introduced into the Native families of this town by Inoculators, but cannot swear to any particular instance of propagation by infection as these matters are concealed by respectable families.

sey.

2. None.

3. All the Mahajuns, Zemindars, and Omlahs, with few known exceptions, Vaccination is practised chiefly among the lower and lowest castes.

4. Inoculation is practised by the *molly* or gardener caste, who travel about the country and make a large income by its practice, and whose object it is to keep up the virus. They connect the process with religious ceremonies, and generally remain with their patient (if they can afford to pay) until the eleventh day, performing a peculiar poojah *bujjun*. The inoculated seldom die themselves, but those infected from the inoculated die in great numbers. We have ascertained upwards of three hundred cases of Inoculation during the spring; there have been deaths from Smallpox induced, and many cases of spontaneous Smallpox. The authorities here come down upon the Inoculators very quickly; I have just prosecuted two men and proved the crime against them; they are sentenced to three months' imprisonment and to find securities (*moochulkah*), or rather give a bond not to inoculate again in this District.

(Signed) R. B. KINSEY,
Civil Surgeon,

Tirhoot.

Abstract of Vaccination at Tirhoot from 1847, 1848 and 1849, &c.

ABSTRACT of VACCINATION at TIRHOOT for the years 1847, 1848 and 1849, and from 1st January to 31st March, 1850.

Months and Years.	Successful.	Unsuccessful.	Doubtful.	Grand Total.	Remarks.
January, 1847,	84	21	19	124	
February,	57	19	21	97	
March,	80	20	16	116	
April,	73	24	20	117	
May,	23	33	22	78	
June,	15	21	17	53	
July,	45	35	13	71	
August,	39	26	13	72	
September,	24	27	4	93	
October,	27	38	6	78	
November,	27	33	7	72	
December,	33	30	14	77	
Total,	527	332	172	1031	
January, 1848,	50	21	14	85	
February,	132	31	15	178	
March,	79	25	20	124	
April,	80	49	11	140	
May,	50	39	21	110	
June,	38	11	7	56	
July,	58	10	8	76	
August,	73	13	8	94	
September,	111	13	9	133	
October,	27	39	1	67	
November,	24	23	1	48	
December,	39	19	13	71	
Total,	761	303	128	1192	
January, 1849,	36	20	12	68	
February,	37	13	7	57	
March,	27	11	11	49	
April,	56	7	8	71	
May,	116	24	18	158	
June,	104	20	25	149	
July,	82	21	11	114	
August,	93	0	0	93	
September,	0	70	0	70	
October,	67	42	0	109	
November,	38	26	0	64	
December,	69	31	18	118	
Total,	242	285	110	1120	

Abstract of Vaccination at Tirhoot from 1847, 1848 and 1849, &c.

Months and Years.	Successful.	Unsuccessful.	Doubtful.	Grand Total.	Remarks.
January, 1850,	69	47	16	132	
February,	45	25	19	89	
March,	128	52	27	209	
Total,	242	124	62	428	

(Signed) R. B. KINSEY,
Civil Surgeon.

FROM ASSIST. SURGEON D. O'CALLAGHAN of *Midnapore*,
To D. STEWART, Esq., M. D.,
Secy. Committee of Investigation, &c.

Dated 5th April, 1850.

*Assistant Surgeon
D. O'Callaghan to
D. Stewart, Esq.,
M. D., dated 5th
April, 1850.*

SIR,

I have the honor to acknowledge the receipt, some days since, of the official papers forwarded to me through the Secretary to the Medical Board with reference to the causes and progress of the severe visitation of the Smallpox now raging in Bengal, and desiring me to procure such information in answer to the questions therein contained as I may think useful for the guidance of the Committee and of the Government with reference to the adoption of legal measures for the suppression of the dangerous and baneful practice of Inoculation.

I shall first direct your attention to the answers of the Members of the Hindoo Community whom I have consulted on these subjects here, shall state their caste and position, and the reasons why I think their opinions are to be relied upon or doubted ; and as the answers to questions so explicitly put must of necessity be curt, and admit of no diffusive information or explanation, I shall add what additional information I have been able to obtain from the Natives I have consulted, and from other sources ; finally I shall, as requested by the Committee, submit whatever extraneous intelligence I possess on the subject, and my own views and suggestions as far as I think it right to obtrude them on their notice and that of Government.

I have, from time to time, had many conversations with intelligent Natives of both the Hindoo and Native Mussulman persuasions, on the

*Assistant Surgeon
D. O'Callaghan to D.
Stewart, Esq., M. D.,
dated 5th April, 1850.*

disease, on the practice of Inoculation, its danger, and their unwise rejection of the simple, safe and cleanly process of Vaccination. I think there is much unanimity of opinion amongst this class of people, and that their views and ideas are pretty well explained in the answers, and information received from the two principal persons with whom I have now been in communication, Rajah Narendakrishna Bahadoor, Uncovenanted Deputy Magistrate at this zillah, and Baboo Jogobundo Banerjea, Head Writer in the Collector's Office. The former is a Native gentleman of European habits, tastes and manners ; the latter is a leading man amongst the Orthodox Hindoo party here ; the children of the former have been vaccinated, those of the latter inoculated ; the Rajah is of the Kaist caste, the Baboo is a Brahmin. I propose to take a view of the answers of the latter as appended to the questions asked by the Committee, and then to embody, as concisely and correctly as I can, the information received from this and other sources, and the results of my investigations and experience during my service in this country.

With reference to the 1st question, and the answer to it, I beg leave to observe that the Baboo, though a very enlightened man, is obviously prejudiced in favour of Inoculation, which is natural from the known attachment of Hindoos to long established customs or usages ; but I widely differ from him, and can positively say from my own experience, and information long since and often given to me, that these instances are not so rare as the Baboo believes, or wishes to believe ; and I am of opinion that the disease is much fostered, upheld and propagated by the detestable practice of Inoculation ; I can bring undeniable Native and European testimony to bear me out in this assertion, and am of opinion that other Medical Officers who may have paid attention to these matters coincide with me in this belief. However as Government can command other extensive sources of information on this point, my opinion, if ill-founded, (which I do not believe it to be) will be innocuous, and lost or overlooked or invalidated, in a mass of contrary evidence, better substantiated and more deserving of being acted upon.

The 2nd and 3rd questions and the answers to them are relatively so explicit and so pointedly given, that I need add no comment, being entirely persuaded that the replies are founded on undeniable fact and every-day experience, and are perfectly satisfactory.

The answer to the 4th question is a feeble one, but such as might be expected from a people who seek for and imagine that they find the

causes of sickness, and of health, of lassitude or vigor, of energy or decay, in the water, the air, and the wind ; and is moreover delusive inasmuch as it burks the answer to the final question, in concealing the most important fact which this investigation will elicit, viz. the fatality occasioned by Inoculation ; we must seek them for deeper reasons to account for the appearance, increase and ravages of this disease on former occasions, and at the present time.

Now from what I have above stated, it will be perceived that I am of opinion that the disease is mainly kept in existence in this country by the practice of Inoculation ; not that it must not always exist as a disease whatever precautions or remedies may be adopted ; but we can refer to the example of civilized countries, where Vaccination is generally appreciated and practised, where Smallpox scarcely exists, attacks but few and rarely finds a victim. It is scarcely necessary to direct attention to the reverse of the picture in this country, where from a perseverance in the practice of Inoculation such dreadful Epidemic visitations of the disease occur. It is not easy, from the jealous nature of the natives of this country, to collect any exact facts, with names, dates, &c. relative to their domestic habits, illnesses and casualties, but, from having for some years superintended the Vaccination of three of the largest districts in Bengal, I give the above opinion as the result of some experience, enquiry and research.

I now approach the subject of Government interfering with a legislative enactment to protect the public and individual health by putting a stop to the practice of Inoculation and enforcing that of Vaccination in its stead ; and here I am aware that it will be necessary for me to move more cautiously, speak more advisedly, and write less dogmatically than when simply giving my own individual opinion as to the causes, progress and fatality of the disease ; and holding my own conviction in partial abeyance, to submit for the information of Government a digest of the opinions and feelings expressed to me, with reference to the above proposition, by individuals of the Hindoo and Mussulman persuasions, whom I have consulted in the matter.

I am happy then to say, that neither of the above high caste natives, nor any other whom I have consulted here, anticipates any serious opposition to the passing and enforcing such a measure of law, provided as is expected, that great care and solicitude be evinced to make the people in the districts, towns and villages well understand the benevolent intentions of Government, the advisability of Vaccination as compared

*Assistant Surgeon
D. O'Callaghan to D.
Stewart, Esq., M. D.,
dated 5th April, 1850.*

Assistant Surgeon
D. O'Callaghan to D.
Stewart, Esq., M. D.,
dated 5th April, 1850.

to the dangerous practice of Inoculation, and the measures which shall be adopted for enabling them advantageously to abandon the latter custom. On the occasion of inoculating their children it is the custom of both Hindoos and Mussulmans to have a poojah or feast, to which are invited the relatives, connexions and friends of the family, and the Brahmins when the party is composed of Hindoos: and I am candidly and credibly informed that the introduction of Vaccination will in no way interfere on these occasions with their prejudices, their ceremonies, or their amusements. The natives firmly believe that Inoculation is the more certain and lasting preventive of Smallpox, and that Vaccination is a comparatively feeble shield, weak in its hold of the human constitution, uncertain, *and requiring frequent renewal*; this, *and this only* is the cause of their adhering to the former practice, which they will relinquish when convinced of their error; it is true they are but slowly open to conviction, however, I do not think, in this instance, that they would misconstrue the intentions of Government to benefit them.

It is the duty of a Government with reference to its subjects to protect the community at large, to protect them from one another, and sometimes to protect them from themselves. In this instance it purposes fulfilling this three-fold object, and it will be well to consider the means by which this beneficent intention can be carried into effect with least inconvenience and alarm to the community, and least expense to a Government always munificent and liberal. With this view I propose to take a sketch of the means and persons by which Inoculation is practised in Bengal generally, I shall then return to this district in particular, and shall finally offer some suggestions as to the best and least expensive method of carrying the proposed intentions of Government into effect.

In some of the districts of Bengal the occupation of the Inoculators is to a considerable extent hereditary, they are born and grow up in the sphere of their practice, they do not extend their labors beyond customary bounds, nor encroach upon the grounds of rival practitioners. If however it should happen that one of these Inoculators should die, and there be no connexion of his, or other person in his circle to succeed him, then a stranger comes and assumes the vacant practice. Now these practices are of various degrees of value; those which pay best and are held in highest estimation are to be found where three or four or five large and populous villages and bazars lie within a moderate distance of each other. Here the practice is easy, compact,

and profitable ; next to these are the practices over ten, fifteen, twenty, or more villages, inhabited more thinly and by a poorer class of people ; and lastly, there are Inoculators who lead a kind of errant life practising amongst and deriving their income from, the smaller villages, scattered huts, and isolated hamlets, with which the remote districts are thinly populated. These last will deserve and receive a separate notice at the conclusion of this part of the subject. I will now submit for the information of your Committee an account of the system of Inoculation as practised in the Midnapore district in particular.

*Assistant Surgeon
D. O'Callaghan to D.
Stewart, Esq., M. D.,
dated 5th April, 1850.*

There are, as far as I have been able to ascertain, and I believe it is the case, but two resident Inoculators in this district. One living in Meer bazar in the zillah, and one at Dolerah about 9 or 10 miles N. E. of Midnapore. These of course are not sufficient to carry their mischievous practice over so large and populous a district ; accordingly in the month of February every year they are joined by coadjutors from other districts, say, as far as I can correctly ascertain, from Burdwan, the chief source of supply, some 7 or 8 ; from Bun Bissenpore, the Bancoorah frontier, some 4 or 5 ; from Calcutta perhaps a few, and also possibly a few from other and uncertain sources. The two resident men here are considered as sirdars or directors, all those who come from other districts meet at their houses, where are made all the arrangements for the season, the villages, bazars and tracts of country apportioned out to each ; they separate, and the work, I may say of death, commences. I am credibly informed that about the end of March or beginning of April they all re-assemble after their labours, that the proceeds of the season are brought together and divided with surprising fairness and with as surprising profit ; they then return to their houses either to live upon their gains or occasionally to engage in other occupations. Last year I am informed by European witnesses, the mortality at Dolerah was dreadful whilst the Inoculators were actually at work there ; but as yet the Smallpox has made very trifling progress in the district during the present season.

The foregoing is correct information with reference to Bengal in general, and the district of Midnapore in particular, but I am not able to state positively whether the practice of Inoculation is pursued to a greater extent by resident Inoculators or by visiting practitioners in Bengal generally, though I should think the former.

It now remains for us to consider the most advisable means of carrying out the intentions of Government and legislating for the suppression

*Assistant Surgeon
D. O'Callaghan to D.
Stewart, Esq., M. D.,
dated 5th April, 1850.*

of Inoculation and the substitution of Vaccination in its stead. Undoubtedly the measure most obvious, most wise, most pleasing to the community, and least costly to Government would be, if possible, to convert the Inoculators, agents of the present mischievous custom, into practitioners of the proposed substitute ; bringing the penal enactment most directly to bear upon them when detected in a criminal perseverance in their present occupation, and at the same time taking care that if willing to continue their occupation, (changing the virus employed,) they should be at all times supplied with healthy Vaccine matter. I have before mentioned that these men are Inoculators by profession, and where resident they are the acquaintances of, and have their practice amongst the Native families of certain towns, villages and districts, and they enjoy in some degree the partiality and confidence of those amongst whom they practice. It is only necessary then to change, by legislative enactment, the virus employed ; the occupation, the emoluments, the station and consideration of the Inoculators remain the same ; the community at large will be incalculably benefitted, not a single individual interest will be prejudiced or injured and the benevolent intentions of Government will be carried into effect quickly yet mildly, fully and yet at hardly any additional expense. On the other hand, the substitution of Government Vaccinators in places of these men and the consequent destitution and loss of occupation of the latter would not only be unwise as far as carrying out the contemplated measure goes, but would be attended with enormous expense to the State without the certainty of corresponding benefit, nay, with the strongest presumption that the old system would still be surreptitiously and extensively carried on and remain almost as general and firmly rooted as ever.

In this district is comprised an area of 5,079 square miles, and it is inhabited, as far as can be correctly ascertained, by 1,360,000 souls, inhabiting 16,939 villages or hamlets. It is almost impossible then to estimate the expense of supplying an efficient body of Government Vaccinators for such an extent of country and such a numerous population ; whereas by the measure I have suggested, and which I am persuaded is perfectly feasible, the proposed object will at once and with scarcely any expense be extensively, and after sometime entirely carried into effect. With reference to para. 2 of the Committee's letter I cannot afford much specific information, as Smallpox has not as yet committed any serious ravages in the Midnapore District this year. And there are here no sources or channels of information from which

could be gleaned any thing like correct returns of the deaths from any Epidemic : and although in the present hot season, when the rest of Bengal is severely suffering from the visitation of Smallpox, this district seems likely to escape, yet it too is during some years most dreadfully visited and suffers from its full portion of the scourge. In the year 1842, whole villages were depopulated by death or deserted from terror ; and the Inoculators were at the time in full work. I have said that there are no direct channels of information here as to the mortality occasioned by Inoculation and by Smallpox, and although such information is certainly desirable, and might be useful, yet it is not absolutely necessary, as enough is known and patent to the community at large as to the practice of Inoculation and its results. I do not think that correct information on this subject can be ascertained from the Police, and am of opinion that the jealous feelings of the people, and their wide dispersion over a large district and a wild country would render the acquisition of any thing like correct information next to impossible. I think the reports of the Darogahs would be composed more from imagination than from information, and would be mere forms on which it would be unsafe to rely, and from which it would be unwise to legislate. I say this because I do not even believe the reports prepared and sent in monthly by the Government Vaccinators in the interior of our districts ; they are far removed from supervision and control, receive a stated monthly salary without any stimulus to exertion, and at the end of the month may prepare and forward a return, most frequently in my opinion, fictitious. *It would be different if they were paid by those amongst whom they practice.*

And now I come to the practice of the Inoculators in this district, the nature and amount of their remuneration. It seems to me that their practice, proceedings and gains must be pretty equable and regular in their permanent visits. The universal custom is to give four annas (4 annas) and four seers of rice for inoculating a boy, and two annas (2 annas) and two seers of rice for a girl, but where the people are very poor they are sometimes obliged to receive it all in kind, or even in brass utensils or other property. On the other hand, the richer people pay more handsomely and sometimes add a present of cloth or other useful article, but less than the above named sum is never taken, and they are rigid in the demand and the payment. On the other hand, the Government Vaccinator at the zillah is obliged to canvass for patients amongst the very poorest classes, who being ignorant and prejudiced, and pauper,

*Assistant Surgeon
D. O'Callaghan to D.
Stewart, Esq., M. D.,
dated 5th April, 1850.*

*Assistant Surgeon
D. O'Callaghan to D.
Stewart, Esq., M. D.,
dated 5th April, 1850.*

only adopt Vaccination in preference to Inoculation because it is unattended with expense and extortion. In the S. W. portion of this district, and in parts of many other districts in Bengal, there are some people in a primitive and abject state who inhabit the woods and jungles, and are but a few degrees removed from the savage, amongst them even Inoculation is unknown, and I am unable to ascertain how far they suffer from Smallpox though I should think severely. They are beyond the pale of civilization, the reach of sympathy, and the aid of medicine.

There is but one Government Vaccinator in this district, none being, as in other parts of Bengal, located in the interior of the country. I enclose, as requested by the Committee, a Tabular view of the practice of Vaccination here during the last five years, from which it will be perceived that there was a great falling off in 1847 and 1848, but I hope and think that the numbers of persons vaccinated here will now steadily increase. Most of the children vaccinated are brought to me for inspection, sometimes to the number of eight or nine of a morning, and the children of the European residents are vaccinated by me from these Native Patients. Most of the adult Europeans at this Station have been vaccinated by me since I have been here, and in some instances the virus has taken effect ; shewing that it is an operation which ought to be occasionally repeated ; a simple and painless experiment and a wise safeguard.

I may here remark that, in my opinion, the Vaccine virus for sometime supplied in Bengal is, from some cause or other, of an inferior description. It is uncertain, seems weak in its effects, the sore created is small and slow of development, and the constitutional effects on the child are feeble and badly marked.

These are all the remarks which I deem it necessary at present to make on this subject, and if they should be found useful to your Committee or to Government, I shall consider myself repaid for the labour of collecting and the trouble of compiling the information contained in them.

I have the honor to be, &c.,

(Signed) D. O'CALLAGHAN,
Assistant Surgeon.

MIDNAPORE, }
5th April, 1850. }

REPLIES *by* BABOO JOGEBUNDOO BANERJEA *to* QUESTIONS *at* *Replies of Baboo Jogobundoo Banerjea.*
page xxvii.

1. There have been such instances but they are rare.
2. Not one.
3. All.
4. From many years' observation I and most others have remarked that the disease rages with a violence proportioned to the heat of the season, always shewing itself in the hot months.

ABSTRACT of Vaccine Operations in Midnapore, during the years,
from 1845 to 1849 inclusive.

1845.				1846.			
Months.	Successful.	Unsuccessful.	Total.	Months.	Successful.	Unsuccessful.	Total.
January,	37	27	64	January,	171	11	182
February,	52	24	76	February,	155	7	162
March,	25	47	72	March,	147	7	154
April,	190	25	215	April,	125	0	125
May,	248	20	268	May,	106	10	116
June,	255	25	280	June,	163	7	170
July,	182	20	202	July,	58	7	65
August,	132	25	157	August,	65	7	72
September, ...	142	11	153	September, ...	172	0	172
October,	152	11	163	October,	48	5	53
November, ...	168	12	180	November, ...	0	0	0
December,	149	7	156	December,	59	6	65
Total,	1732	254	1986	Total,	1269	67	1336

*Replies of Baboo
Jogobundoo Baner-
jea.*

1847.				1848.			
Months.	Successful.	Unsuccess- ful.	Total.	Months.	Successful.	Unsuccess- ful.	Total.
January,	64	6	70	January,	67	0	67
February,	58	4	62	February,	53	3	56
March,	40	10	50	March,	0	0	0
April,	0	40	40	April,	0	0	0
May,	0	0	0	May,	49	4	53
June,	0	30	30	June,	32	20	52
July,	0	53	53	July,	0	20	20
August,	0	0	0	August,	0	20	20
September, ...	0	0	0	September, ...	0	0	0
October,	0	0	0	October,	0	0	0
November, ...	0	27	27	November, ...	0	0	0
December,	25	23	48	December,	0	0	0
Total,	187	193	380	Total,	201	67	268

1849.

Months.	Successful.	Unsuccess- ful.	Total.	Months.	Successful.	Unsuccess- ful.	Total.
January,	135	15	150	August,	50	6	56
February,	132	8	140	September, ...	40	4	44
March,	183	0	183	October,	0	0	0
April,	0	0	0	November, ...	0	0	0
May,	47	8	55	December,	0	0	0
June,	40	10	50				
July,	0	0	0	Total,	627	51	678

Successful.

4016

Unsuccessful.

632

Total.

4648

(Signed) D. O'CALLAGHAN,

Assistant Surgeon.

FROM DR. B. S. DICKEN,
Civil Assistant Surgeon, Patna,
 TO D. STEWART, Esq.,
Supdt. Genl. of Vaccination.

Dr. B. S. Dicken
to D. Stewart, Esq.,
dated 18th April,
 1850.

Dated 18th April, 1850.

SIR,

I have the honor to acknowledge the receipt of your letter of the 18th ultimo, relating to the recent ravages of Smallpox. As regards this place, the disease, I am persuaded, is always introduced and kept up by Inoculators, who generally arrive here towards the termination of the rainy season and remain until the end of the hot weather. During the whole of this period they disseminate Smallpox, and when the extent of this city is taken into consideration (being 10 miles in length) the number constantly under the disease, during the above period, must be very great.

2. It is difficult to ascertain the exact number of *Ticcadars*, but I imagine they cannot fall short of 50 or 60; only a few reside in the city, the bulk come from other districts and are said to be "mallees" by profession. The plan they adopt is this—At the close of the season they take away with them a quantity of crusts; they are preserved in a cool place, in a closely shut vessel, until required for further operations. I am informed, but cannot say with what degree of truth, that these crusts are ground down and mixed with earth and water, forming a thin kind of paste. If persons will not allow their children to be inoculated, a small quantity of this mixture is clandestinely thrown where children are in the habit of playing or about the door way, or house, and in a few days Smallpox breaks out in the dwelling. The device is an ingenious one certainly, if effectual, but of this I can only speak from hearsay. The disease once established, the *Ticcadars* are sought after to mitigate the severity of it and inoculate others.

3. I do not think the prejudices against Vaccination are so strong now as they were a few years since. Some respectable people have had their children vaccinated,—the greatest objection to it appears to be the absurd one that no sort of poojah is made by the Vaccinators. With Inoculation, so much tomfoolery is practised, particularly if the patient is able to pay for it, that one can hardly wonder at their being sceptical of the cheap and more simple prophylactic.

4. I think a legislative enactment would have the best possible effect in putting down Smallpox, at all events it would deter the

Dr. B. S. Dicken *Ticcadars* from carrying on their vocation in the determined manner they do at present.
to D. Stewart, Esq.,
dated 18th April,
 1850.

5. No registers or Police records of mortality are kept here. I have consulted the Magistrate on the subject, and he justly, I think, considers that such could not be enforced without constantly subjecting the inhabitants to enquiries into their domestic matters, which they would view with great apprehension and aversion. I am, therefore, unable to say what the mortality from Smallpox is, but as far as I can learn *about 10 or 12 per cent. of those inoculated*. The disease occasionally shews itself after Vaccination in a *modified* form, probably from due care not being taken in seeing that the Vaccine vesicle is not scratched off or destroyed, but in no single instance have I heard that death has resulted.

6. I have consulted some of the most respectable Natives on the subject of a legislative enactment, but it is difficult to get at their real opinion, they coincide in whatever they suppose may be the wishes of the party. Had Smallpox not been introduced by the Inoculators, it would, in all probability, have found its way here from Dinapore, where, I understand, the disease has been for six weeks, some patients having been landed from a Steamer proceeding from Calcutta to the Upper Provinces.

7. It will be seen from the annexed Table, the number vaccinated this year does not exceed that of former years, but were any law passed to prevent the spread of Smallpox by Inoculation, I have no doubt the number of Vaccine patients would much increase. I may mention that Vaccination has been maintained here for upwards of twelve months, without interruption, a thing unknown for the previous two or three years. The difficulty of keeping up Vaccination throughout the whole year is occasionally very great and must of course be taken into consideration in passing any stringent laws.

8. I would advise that the present Inoculators be retained as Vaccinators in the employ of Government. Could this be effected they might still continue their poojahs in disseminating the *Vaccine disease*, and any dereliction of duty being detected (I mean in substituting variolous matter for Vaccine) condign punishment should follow.

9. I applied to Baboo Ram Esher Awasthee, the Sub-Assistant Surgeon who resides in the heart of the city, for his opinion on the subject of Inoculation, and he has furnished me with the following list of persons who have died from Inoculation, and coming under his own

observation. He also states the mortality to be much greater than I have given it above. He estimates it *at 20 per cent. of those inoculated* and 40 of those who take it in the natural way. He also instances several cases of Variola as occurring amongst his relatives and friends after Vaccination, as well as after Inoculation.

*Mr. B. S. Dichen
to D. Stewart, Esq.,
dated 18th April
1850.*

10. I subjoin a few answers (translated from the Hindoostanee) to the questions submitted by you. From these it will be seen that a Legislative Enactment is favourably regarded.

Having many calls upon my time just now, I have been prevented replying to your letter earlier, but I trust the delay will have caused no inconvenience.

TABLE shewing the MORTALITY which occurred, to my knowledge, from Smallpox induced by Inoculation.

Names of Children.	Names of Parents.	Caste.	Mahullah.	Date of Death.
Maucoondee, ..	Nundoo,	Mallee,	Semree,	Died in 1840.
Ramlall,	Ditto,	Ditto,	Ditto,	Ditto.
Setabo,	Sookhun,	Coormie,	Ditto,	Ditto.
Bhuttoo,	Bodhoo,	Burhee,	Begumpore,	Ditto.
Bhutnee,	Juggoo,	Cooree,	Meershekarpoore,	August 1849.
Gunnesho,	Jeetun,	Kahar,	Ditto,	1 Jan. 1850.
Velayet Hoosein,	Die Mohumud, ..	Mohumudan, ...	{ Aga Hussain } { Khan ka Chow- } { rah,	Ditto.
Baulgobind,	Abbuckhee,	Lohaur,	Moghulpoorah,	March 1850.
Runnoo,	Ditto,	Ditto,	Ditto,	Ditto.
Juggo,	Dhumnoo,	Talee,	Soodeekutra,	Ditto.

Mr. B. S. Dicken STATEMENT of Vaccination of the Civil Station of PATNA from
to D. Stewart, Esq., 1st April 1845 to 31st March, 1850.
dated 18th April,
 1850.

Months.	1845.		1846.		1847.		1848.		1849.	
	No. of Persons Vaccinated.	No. of Successful Cases.	No. of Persons Vaccinated.	No. of Successful Cases.	No. of Persons Vaccinated.	No. of Successful Cases.	No. of Persons Vaccinated.	No. of Successful Cases.	No. of Persons Vaccinated.	No. of Successful Cases.
April,.....	561	511	334	86	618	593	587	575	465	430
May,.....	508	486	412	355	759	719	421	376	310	285
June,.....	558	491	427	358	686	641	399	369	284	234
July,.....	487	419	454	382	707	646	385	340	310	205
August,..	502	457	457	303	765	701	336	288	281	199
Sept., ...	489	413	88	0	718	644	72	21	281	208
October,...	469	399	17	0	0	0	48	0	290	210
Nov.,.....	503	461	93	0	39	9	32	0	262	236
Dec.,.....	503	484	73	66	345	320	46	16	284	252
January,..	526	489	443	436	443	436	195	175	303	252
February,.	380	303	431	424	431	424	195	175	313	259
March, ...	509	378	615	588	615	588	367	315	307	268
Total, ...	5995	5291	3844	2998	6126	5721	3083	2650	3690	3038

PATNA, CIVIL SUR-
 GEON'S OFFICE,
The 18th April, 1850.

I have the honor to be, &c.,
 (Signed) B. S. DICKEN,
Civil Surgeon and Supdt. Vaccn.

OPINIONS of the chief NATIVE and MAHOMEDAN INHABITANTS of
 PATNA.

MAHARAJAH BHOOP SING—Is of opinion that Vaccination and Inoculation are both inconvenient, but that which is less so, appears preferable. Vaccination is better, why therefore should men of knowledge forsake Vaccination and resort to Inoculation, which is more inconvenient and dangerous.

NOWAB HYBUT JUNG BAHADOOR.—In my humble opinion Vaccination is better.

NOWAB SHORAB JUNG BAHADOOR.—Ditto ditto.

HUKEEM ABDOOL HUSUN.—There is no doubt that the Native mode of Inoculation was formerly much prevalent ; the present Vaccination is preferable, but the English mode of Inoculation formerly practised was still better perhaps ; the matter of Smallpox was used, some pustules

would appear on the body also, by which the whole of the System would be freed ; but in Vaccination this is not the case, and fear of pox breaking out hereafter is apprehended.

*Mr. B. S. Dicken
to D. Stewart, Esq.,
dated 18th April,
1850.*

BABOO BEHAREE LOLL PANDY RAE HUREKISSOON.—Vaccination is better ; Inoculation by Mallees is observed owing to Hindoo Poojahs. Vaccination is better than Inoculation because less inconvenience and danger are apprehended.

RAE NUNDLALL—Concurs in opinion with Maharaja Bhoop Sing.

BABOO CHOONEE LALL.—Great inconvenience is felt from Inoculation and not from Vaccination, which is better.

BABOO RASBEHAREE LALL.—It is better to observe the dictates of the Shaster

BABOO BELASBEHAREE LALL.—Vaccination is far better than the mode of Hindoostanee Inoculation, because no inconvenience is felt by it.

GONKURN BAJPAYEE.—The same opinion as that of Baboo Rasbeharee Lall.

BABOO HURGOBIND GHOSE—Concurs in opinion with Baboo Belasbeharee Lall.

BABOO BUNWAREE LALL—Ditto ditto ditto.

BABOO RUNJEET SING—Ditto ditto ditto.

PUNDIT SREE RAMAISUR DOOBE—Ditto ditto ditto.

KHEALEE RAM TEWARRY—Ditto ditto ditto.

PUNDIT SREE JUGGURNATH SOOKUL.—In my opinion both are the same ; but no danger of life is apprehended from Vaccination, therefore it is better.

BABOO CHOWKREE LALL.—Vaccination is better than Inoculation.

WOOMAI DOOBE.—Ditto ditto ditto.

SREE PITUMBER TURKBAGISE.—No benefit is derived either from Vaccination or Inoculation, as Small pox will break out some time or other and cause inconvenience and death : therefore if Government would cause such medicine to be given as to prevent both would be better.

SYED VELAYET HUSSAIN.—Vaccination is generally approved of, and the same is my own opinion ; it is therefore requisite that Inoculation by Mallees should be prevented.

RAJA HETNARAIN.—Inconvenience is experienced from Inoculation by Mallees, which is prevented by Vaccination. Poojahs, in the usual manner, may be observed.

MOONSHEE MUDDUN GOPAL.—Ditto ditto ditto.

PUNDIT SREE GUJADHUR BHUT.—Ditto ditto ditto.

*Mr. B. S. Dicken
to D. Stewart, Esq.,
dated 18th April,
1850.*

BABOO HEEMUT BEHADOOR.—Ditto ditto ditto.

The above Native Gentlemen of Patna were applied to for their opinions, and these are their answers translated from the Persian.

(Signed) B. S. DICKEN,
Civil Surgeon.

FROM DR. B. S. DICKEN,

Civil Surgeon, Patna,

TO D. STEWART, ESQ., M. D.,

Supdt. General of Vaccination.

Dated 20th April, 1850.

SIR,

With reference to my letter of the 18th instant, I have the honor to forward a Statement of Vaccinators employed at Patna, for the past five years. This I omitted to send with my last communication to your address.

I have the honor to be, &c.,

(Signed) B. S. DICKEN,
Civil Surgeon and Supdt. of Vaccn.

PATNA, CIVIL SUR-
GEON'S OFFICE, }
The 20th April, 1850.

DETAILED STATEMENT of *Vaccinators at Patna from 1st April
1845 to 31st March, 1850.*

Years.	Number of Vaccinators.	Remarks.
1845	5	} There has been no increase or decrease for the past five years.
1846	5	
1847	5	
1848	5	
1849	5	
Total,	25	

(Signed) B. S. DICKEN,
Civil Surgeon and Supdt. of Vaccn.

PATNA, CIVIL SUR-
GEON'S OFFICE, }
The 20th April, 1850.

FROM DR. J. P. BROUGHAM, *Assistant Surgeon,*
Ramghur Light Infantry Battalion,
 TO D. STEWART, Esq., M. D.,
Supdt. Genl. of Vaccn., and Secy. to the Smallpox Committee.
Dated 6th April, 1850.

Mr. J. P. Brougham
to D. Stewart, Esq.,
M. D., dated 6th
April, 1850.

SIR,

In reply to your Circular of the 18th ultimo, I have the honor to state that the condition of society here is such, that the kind of information desired is such that cannot, I am sorry, be obtained. Where the people are entirely engaged in agriculture, and though numerous, detached in small villages, scattered over a large surface, where at the same time the inhabitants are entirely ignorant of writing, we cannot expect the sort of correct information to form statistics: the whole of my information is derived from conversations with Native Officers of the Ramghur Battalion, respectable Natives in Government employ resident here, but not of this part of India or from the heads of villages in the neighbourhood, Coles, the people of this country. The great fault to be found with the sort of information I have obtained is its want of precision, my informants agree on the following heads.

1st. The *Ticcadars* go about (seemingly) all parts of India, commencing their excursions about the end of the cold season.

2nd. That many who are inoculated die; that the Smallpox is certainly spread by the *Ticcadars*, but this is not looked on so much as a fault of the *Ticcadars* as of the persons who take the disease, inasmuch as they neglected to avail themselves of the advantage Inoculation presents.

3rd. That the *Ticcadar* is well paid for his trouble if successful, frequently obtaining as much in a poor village as Rupees 10, the usual fee from the poorest is 4 puckahs (2 annas) and one measure of rice for a boy; for a girl 3 puckahs (six pice) and one measure of rice; of course from those better off, the *Ticcadar* would not refuse a present. Should the *Ticcadar* be unsuccessful and deaths ensue, he stands a very good chance in this country of being victimized.

4th. The children or persons to be operated on in a village are all inoculated on the same day.

5th. That the *Ticcadars* who come into this district are all of the Brahmin caste and come mostly from Puchkote Beharie in the Burdwan district, but to the north, persons of the Mobrie caste, also operate. They frequently go in considerable numbers (10 or 15) taking the villages

Mr. J. P. Brougham
to D. Stewart, Esq.,
M. D., dated 6th
April, 1850.

on their road, and there does not seem to be any rule as to the number in any district ; and here they more frequently come singly.

I am sorry I cannot obtain the important information required in para. No. 2. Application was made by me to the Magistrate here, he informs me that no records of mortality are preserved in his district, nor does he consider such records could be kept here without considerable expense and great difficulty. I am not aware that in any district the Smallpox (though it existed) was more prevalent during the past 12 months than during any similar period ; to the south I know such to have been the case, and I believe the mortality was very great.

As to the propriety of putting a stop to promiscuous Inoculation, there cannot be the slightest doubt, especially in districts like this, but without the Magistrate having the power of punishing the *Ticcadars* I do not see how it can be done. When I first came here I caught two or three of these men and brought them before the Magistrate, but was informed he had no power to stop their proceedings. They consequently came off triumphantly, carried on their operations without fear close to the Civil Station, and certainly many persons died that year in the Civil Station from Smallpox.

At the present time in four villages Huttee, Oberiah, Keetinghur and Patgain, near this a *Ticcadar* was at work about six weeks ago ; in one of these nine persons have died of Smallpox and about fifteen either have had, or have the disease naturally and severely ; in the other two the disease is prevalent, and two persons have died.

I can distinctly state the Coles have not the slightest prejudice against Vaccination, though almost every person is inoculated ; it is more because it is the "*dustoor*" than that they dread or doubt the remedy. There is, however, great difficulty in keeping up a supply of lymph, and even in telling when it has taken properly ; the children are so little attended to that they constantly manage to scratch the vesicle, so that it is frequently doubtful when the operation is successful ; and as to getting lymph it is only from one, in a hundred, that this is possible.

I have the honor to be, &c.,

(Signed) J. P. BROUGHAM,

Assistant Surgeon,
Ramghur Light Infantry Battalion.

DORUNDAH, }
6th April, 1850. }

STATEMENT shewing the number of Vaccine Operations performed from the 1st of April 1845 to the 31st March, 1850.

Dorundah, 6th April, 1850.

Station.	Caste.	From 1st April 1845 to 31st March 1846.		From 1st April 1846 to 31st March 1847.		From 1st April 1847 to 31st March 1848.		From 1st April 1848 to 31st March 1849.		From 1st April 1849 to 31st March 1850.		Remarks.
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
	Christians, ... Mussulmans, Hindoos, ...	No record of successful Vac- cinations during this period.	1 37 267	4 17 272	1 1 228	2 4 174	7 7 314	1 4 274	0 8 141	0 1 125		

(Signed) J. P. BROUGHAM, M. D.,

Assistant Surgeon, Superintendent,
Ranghur Light Infantry.

Statement shewing
the number of Vaccine
Operations performed
from the 1st of April
1845 to the 31st March,
1850.

*Mr. J. Denham to
D. Stewart, Esq., M.
D., dated 6th April,
1850.*

FROM DR. J. DENHAM,

Civil Assistant Surgeon of Gya,

TO D. STEWART, Esq., M. D.,

Supt. Genl. of Vaccn. and Secy. Smallpox Committee, Calcutta.

Dated 6th April, 1850.

SIR,

In reply to your letter of the 18th ultimo I now beg to observe from the information I have been enabled to glean from some of the most respectable Natives of this Town, regarding the operations of the *Ticcadars* and the general diffusion of the Smallpox through their agency. I am led to believe that in nine instances out of ten, it can be traced entirely to the operations of the Inoculators this year ; for instance, not a single case of Smallpox had been heard of, until the arrival of these men, some 35 or 40 in number, consisting of castes of Brahmins, Kahets, Barbers, and Gardeners, from the neighbourhood of Tirhoot. They generally make their appearance about the end of February and successfully preserve their calling until the middle or end of April. During last month several children were inoculated by them, but the disease appears to have been of an extremely mild kind, going through its stages steadily without much constitutional disturbance. Up to the present time, I have not had a single fatal case occurring amongst those who have undergone the operation.

2nd. As there are no Ghaut or Burial Registers, nor any Police Records of mortality kept, I am unable to furnish the information called for in the 2nd para. of your letter under acknowledgment, however through the agency of the Police or Municipal Committee of the Town, trustworthy reports *might easily* be obtained in future.

3rd. With reference to Vaccination, I request to state that I perceive no change in the opinions of the Natives. On this point they seem to be as averse to the introduction of Vaccination now, as they were six years ago, always giving the preference to Inoculation. I am speaking of the respectable class of Natives, both Mahomedans and Hindoos, the former being more bigotted in this point if possible than the latter ; even the poorer classes are not easily persuaded to submit their children to the operation of Vaccination. In the district, however, better success attends the efforts of Vaccination ; the villagers, through ignorance, considering Inoculation and Vaccination identical, require little or no persuasion to admit of its introduction amongst their families. Vaccinators who are employed in the neighbourhood of large Towns,

particularly such as this, I fear, do little or no good, it is in the district alone their efforts will meet with success.

4th. With regard to the Establishment under me here, I have three Vaccinators, two always out in different parts of the district, and one in the town of Gya. Those in the district are thus disposed of, one is placed at Nowada, 36 miles from Gya, where there is a Deputy Magistrate, and the other at Sherghotty, a Post Office Station. I change them about every two or three months so that I have them all four months every year under my immediate supervision. In the hot weather when there is little to do, they are employed as Native Doctors, all being able Native Doctors, and quite competent to treat the generality of diseases. When proceeding out of the district, they are furnished with medicines and thus are able to afford medical aid to the poor villagers, and at the sametime they have a favourable opportunity of introducing the blessings of Vaccination amongst them. The one employed at Nowada in the cold weather accompanies the Deputy Magistrate's Camp through his subdivision, and as often as practicable vaccinates children in the presence of that officer.

Sub-Assistant Surgeon's Statement shewing the mode of Inoculation conducted in this Station and also replies of Baboos Sewsohoy Sing and Damoodur Dhoogree Gyal, to the printed questions submitted to them.

5th. The Tabular view of the results of Vaccination during the past 5 years is herewith appended together with the documents noted in the margin.

6th. As the expediency of putting down Inoculation admits of no doubt, the infliction of heavy fines, both on the Inoculators and Parents of the Children, together with stringent instructions to the Police, for the early apprehension of all *Ticcadars* would doubtless put an end to so baneful a practice.

I have the honor to be, &c.,

(Signed) J. DENHAM,

Civil Assistant Surgeon.

Gya, }
6th April, 1850. }

STATE of Smallpox and Inoculation at Gya, by SHAMACHURN
SIRCAR, Sub-Assistant Surgeon.

The inhabitants of Gya, Sahebgunge, and all the villages included in the district of Behar generally, prefer the operation of Inoculation to Vaccination. The Hindoos particularly adhere to the old practice

Dr. J. Denham to
D. Stewart, Esq., M.
D., dated 6th April,
1850.

State of Smallpox
and Inoculation at
Gya, by Shamachurn
Sircar, Sub-Assistant
Surgeon.

State of Smallpox and Inoculation at Gya, by Shamachurn Sircar, Sub-Assistant Surgeon.

of Inoculation by *Ticcadars*, who come to this Station once in the year, and that in the months of February and March, and bring along with them the matter of true Smallpox (which they say they preserve on purpose) to inoculate with, and when their arrival is reported to the Native gentlemen, they consult their friends and pundits and fix upon a day when the children of different families are brought to the *Ticcadars* from the same neighbourhood. The object of inoculating all the children of the same neighbourhood at the same time is to prevent them from catching the disease by contagion, the effects of which are always of a more serious nature than Inoculation.

Mode of Operation.

The *Ticcadars* prepare a solution of the Smallpox matter and put a drop of it on the forearm of the child to be inoculated, about the size of a pea, and make upon that spot a number of small punctures with a needle, so as to bring the matter in contact with the blood of the child, and immediately after it they order them to bathe and take all sorts of cooling food ; on the third day, the *Ticcadar* comes to see the child again, and if he finds that the disease has not taken, he gives a small quantity of the *solution of the matter* internally which brings on the fever at once, and with it the eruptions begin to appear in great numbers. The severity of the malady depends more upon the state of the constitution than upon the mode of operation or introduction of the disease.

Greater number of these children have the distinct Smallpox and comparatively in small numbers, but some have confluent eruptions covering the whole surface of the body and sometimes in the cavities of the mouth, the nostrils and the eyes. Eruptions have been observed sometimes in the lining membranes of the larynx and pharynx with abscesses and carbuncles on different parts of the body ; these cases generally terminate fatally.

The type of fever attendant on the disease in all the cases, is in the commencement of a continued type, which continues from the third day of operation to the tenth, when it begins to subside. On the eleventh or twelfth day, the eruptions burst and desquamation commences, and the fever leaves entirely. In severe cases when there are abscesses and carbuncles in glandular structures, the type is generally of an inflammatory character, and as soon as the child's strength fails, by the copious discharge of matter and irritability of the system, it assumes the typhoid character.

The Epidemic or Idiopathic Smallpox prevails in this part of the country after the commencement of the operation of Inoculation, and from it the children of the high and low classes of Natives suffer equally, and these cases are of a more serious nature than the inoculated disease.

State of Smallpox and Inoculation at Gya, by Shamachurn Sircar, Sub-Assistant Surgeon.

The principal cause of the prevalence of the disease is a neglect on the part of the parents of the children in not vaccinating them, as many families raise objections to the operation both of Vaccination and Inoculation, saying that these practices were never introduced in their families by their ancestors, and consequently it is against their rule to introduce such things now, and so leave their children to be affected by the Epidemic disease.

No medicine is given to the children when they have a high degree of fever, and the eruptions become confluent and the life of the child is in hazard ; the parents as well as the Inoculators leave them to the divine protection of *Situla* (Goddess of Smallpox) and at the same time allow them any kind of food they ask for.

(Signed) SHAMACHURN SIRCAR,
Sub-Assistant Surgeon.

Gya, }
5th April, 1850. }

STATEMENT of Vaccination at the Civil Station of GYA from April 1845 to March 1850.

Statement of Vaccination at the Civil Station of Gya, from April 1845 to March 1850.

Station.	Months and Years.	Successful.	Unsuccessful.	Total.	Remarks.
Gya, ...	April, 1845,	150	19	169	
	May,	189	19	208	
	June,	130	11	141	
	July,	89	13	102	
	August,	104	14	118	
	September,	113	11	124	
	October,	114	10	124	
	November,	99	9	108	
	December,	88	12	100	

Statement of Vaccination at the Civil Station of Gya, from April 1845 to March 1850.

Station.	Months and Years.	Successful.	Unsuccessful.	Total.	Remarks.
Gya, ...	January, 1846,	84	11	95	
	February,	111	13	124	
	March,	129	18	147	
	April,	138	17	155	
	May,	117	12	129	
	June,	76	7	83	
	July,	69	12	81	
	August,	62	16	78	
	September,	59	9	68	
	October,	64	10	74	
	November,	62	12	74	
	December,	94	9	103	
	January, 1847,	48	4	52	
	February,	117	12	129	
	March,	66	13	79	
	April,	61	12	73	
	May,	118	16	134	
	June,	68	17	85	
	July,	69	20	89	
	August,	66	13	79	
	September,	71	17	88	
	October,	75	12	87	
	November,	67	14	81	
	December,	87	14	101	
	January, 1848,	79	12	91	
	February,	67	24	91	
	March,	85	18	163	
	April,	101	14	115	
	May,	111	17	128	
	June,	90	13	103	
	July,	78	10	88	
	August,	71	22	93	
	September,	0	54	54	
	October,	72	22	94	
	November,	74	20	94	
	December,	74	17	91	
	January, 1849,	75	26	101	
	February,	84	18	102	
	March,	85	15	100	
	April,	80	12	92	
	May,	86	14	100	
	June,	75	15	90	
	July,	76	20	96	

					Remarks.
Station.	Months and Years.	Successful.	Unsuccessful.	Total.	
Gya, ...	August,	72	19	91	
	September,	42	25	67	
	October,	51	32	83	
	November,	50	25	75	
	December,	56	29	85	
	January, 1850,	68	18	86	
	February,	72	21	93	
	March,	76	23	99	
Grand Total,		5004	983	5987	

Statement of Vaccination at the Civil Station of Gya, from April 1845 to March 1850.

(Signed) J. DENHAM, M. D.,
Civil Assistant Surgeon.

Gya, }
6th April, 1850. }

FROM DR. J. COLLINS,
Civil Assistant Surgeon, Monghyr,
To D. STEWART, Esq.,
Superintendent General of Vaccination.
Dated 17th April, 1850.

Dr. J. Collins to D. Stewart, Esq., M. D., dated 17th April, 1850.

SIR,

In reply to your letter of the 18th of March respecting the origin, mode of diffusion, and extent of ravages of the recent Epidemic Smallpox, I have the honor to forward such information as I have been able to obtain.

1. Smallpox has not raged as an Epidemic during the past season in this Zillah ; many cases have occurred in the bazars during the last six weeks, but chiefly from Inoculation which is performed during the months of March and April. It has spread in some instances, and a few deaths have occurred.

I have consulted several well informed and respectable Hindoos on the subject of putting down Smallpox Inoculation by legislative enactment. They generally say that it would be easy to put down Inocula-

*Dr. J. Collins to
D. Stewart, Esq.,
dated 17th April, 1850.*

tion, but difficult to substitute Vaccination in its stead. It appears to me that much may be done indirectly, for instance by not allowing any man to hold office under Government unless he could show proof of having been vaccinated.

2. As the Epidemic has not spread here, I can say nothing as to its origin ; no registers of deaths or burials are kept here. I do not think it possible to obtain trustworthy reports from the Police.

3. Only four or five professed *Ticcadars* reside in this town. *Ticcadars* come in the months of March and April and make a tour through the towns and villages ; a few deaths I have heard have followed their operations here lately.

4. I have copied out the monthly Vaccination reports of this Station for the past five years, by which it will be seen that the success of the last two years has been greater than that of the first three years, and that only one Native Vaccinator has been employed in this district.

This report, with the answers to the questions submitted to Baboo Rampertaub, Native Vaccinator, are herewith enclosed.

I have the honor to be, &c.,
(Signed) J. COLLINS,
Civil Assistant Surgeon.

MONGHYR, }
17th April, 1850. }

*Monthly Statement
of the results of Vac-
cination in the Dis-
trict of Monghyr.*

MONTHLY STATEMENT of the results of Vaccination in the District
of MONGHYR, from 1st of April 1845 to 31st of March 1850.

Months.	No. of Persons Vaccinated.	No. of Successful Cases.	Remarks.
April, 1845,.....	25	None.	{ The virus has failed as usual at this season when it becomes decomposed by the heat and moisture.
May,.....	16	1	
June,	"	"	
July,.....	15	None.	
August,	None,	None.	

*Monthly Statement
of the results of Vac-
cination, in the Dis-
trict of Monghyr.*

Months.	No. of Persons Vaccinated.	No. of Successful Cases.	Remarks.
September,	29	None.	
October,	8	None.	
November,	22	None.	
December,	None,	None.	
January 1846, ...	15	None.	{ The Vaccine matter was ob- tained from England, but owing probably to age proved inert.
February,	27	11	
March,	25	10	
April,	24	7	
May,	15	None.	{ The failure in every case I can attribute to nothing but the hot weather.
June,	10	None.	
July,	14	None.	{ Fresh Vaccine Crusts have been used at different times during the last three months.
August,	None,	None.	
September,	15	None.	{ The Vaccine Virus was pro- cured at Patna. The Vaccine Virus was re- ceived from the Superintendent General of Vaccination. To my applications for Virus, dated 12th of September and 13th of October, the Superin- tendent of Vaccination has re- turned me no answer.
October,	19	None.	
November,	16	None.	
December,	30	5	
January, 1847, ...	42	6	{ The Virus received from the Superintendent of Vaccination, Calcutta. Ditto ditto. I cannot depend in the least upon the Native Vaccinator. He is very much dissatisfied with his appointment, and takes no pleasure in the execution of his duty. The Native Vaccinator, in ac- cordance with the desire of the Medical Board, was discharged on the 15th.
February,	23	1	
March,	No. not stated	14	
April,	12	None.	

*Monthly Statement
of the results of Vac-
cination in the Dis-
trict of Monghyr.*

Months.	No. of Persons Vaccinated.	No. of Successful Cases.	Remarks.
May,.....	10	2	{ I find it extremely difficult to induce the Natives to bring their children to be vaccinated.
June,	6	6	
July,.....	3	None.	
August,.....	None,	None.	{ Without a Native Vaccinator, I find I cannot maintain the disease among the Natives. Except by actual force the Natives will not bring their children to my house, first, to be vaccinated, secondly, for the purpose of shewing the success or non-success of the case. In accordance with the suggestion of the Medical Board a Vaccinator will be appointed on the 1st of October.
September,	None,	None.	
October,	None,	None.	
November,	25	13	{ Vaccinator appointed, no Virus has yet been received.
December,	30	30	
January, 1848,...	40	40	
February,	51	51	
March,	55	55	
April,	31	31	
May,.....	32	32	
June,	29	29	
July,	22	22	
August,.....	5	1	
September,	None,	None.	Native Vaccinator ill with fever.
October,	None,	None.	Ditto on leave, sick.
November,	None,	None.	
December,.....	None,	None.	{ Native Vaccinator dismissed, having overstaid his leave. Another Vaccinator appointed.
January, 1849,...	5	None.	
February,	14	11	
March,	19	14	
April,	17	2	
May,.....	15	14	
June,	14	14	
July,.....	12	8	

*Monthly Statement
of the results of Vac-
cination in the Dis-
trict of Monghyr.*

Months.	No. of Persons Vaccinated.	No. of Successful Cases.	Remarks.
August,	14	13	
September,	15	12	
October,	17	15	
November,	17	15	
December,	25	20	
January, 1850,...	20	17	
February,	26	23	
March,	27	24	

MONGHYR, }
17th April, 1850. }

(Signed) J. COLLINS.

REPLIES to QUESTIONS at page xxvii, by BABOO RAMPERSAUD.

*Replies of Baboo
Rampersaud.*

Answer 1st.—I know of no such instances myself, but have heard of many.

Answer 2nd.—I do not think there is one respectable Hindoo family in the district that adopts Vaccination, the persons I vaccinate are of the lowest classes.

Answer 3rd.—Nundoolall, Lall Jee Saye, Juggernath Saye, Buna Kunwar, Gunness Dutt, and indeed every respectable Hindoo family in the district.

Answer 4th.—The chief cause is the universal practice of Inoculation, the disease sometimes spreads of itself in the Bazar from persons who have been inoculated.

FROM J. K. WALTER, Esq.,

Civil Assistant Surgeon, Rungpore,

TO D. STEWART, Esq.,

Superintendent General of Vaccination.

Dated 7th May, 1850.

*J. K. Walter, Esq.,
to D. Stewart, Esq.,
dated 7th May, 1850.*

SIR,

I have the honor to state in reply to your communication, relative to the enquiries instituted to discover the "origin and mode of diffusion of Variola," that in this district, no Legislative Enactment is at

*J. K. Walter, Esq.,
to D. Stewart, Esq.,
dated 7th May, 1850.*

all necessary to compel the Natives to adopt Vaccination. They all appear to be fully sensible of the advantages derived from its adoption, and from the reports made to me, submit to Inoculation, for the want of a Vaccinator upon whom they can depend.

2. I cannot learn that any cases of Variola have occurred in this vicinity during the past year; and with regard to any "ghat or burial registers or Police records of mortality," if any existed, they could not be depended upon, from the incorrectness and exaggeration to which the Natives are prone.

3. There is only one authorized *Ticcadar* in this district, but there are two or three persons who carry on the trade of Inoculators; of the extent of their practice I have no information.

4. As I have before stated the public opinion is in favour of Vaccination, and the only means I can suggest for the suppression of the practice of Inoculation, or the abolition of Variola, are, an establishment of qualified persons to be distributed over the district who should be constantly supplied with legitimate lymph from the Calcutta Institution, and the Medical Officer of the Zillah be furnished by the Government with the conveniences for visiting occasionally the different localities where these Vaccinators are established so as to supervise their labors, ensure correct returns, and encourage, by his presence, a practice which it is so desirable to render exclusive.

5. I have enclosed, as directed, a numerical report on the state of Vaccination for the last 5 years.

I have the honor to be, &c.,

(Signed) J. K. WALTER,
Civil Assistant Surgeon.

RUNGPORE, }
7th May, 1850. }

A TABLE shewing the extent of Vaccination in the District of
RUNGPORE during the years 1845 to 1849 inclusive.

A Table shewing the
extent of Vaccination
in the District of
Rungpore during the
years 1845 to 1849 in-
clusive.

Months.	1845.		1846.		1847.		1848.		1849.		Total.
	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.	
January, ...	15	34	13	30	12	21	18	29	15	32	219
February, ...	12	33	0	48	10	30	12	33	11	28	217
March, ...	7	31	17	21	10	28	9	22	10	33	188
April, ...	10	31	13	32	13	27	12	35	12	29	214
May, ...	23	25	11	32	15	28	8	33	15	19	209
June, ...	None*		9	37	8	38	12	31	12	30	177
July, ...	14	32	14	36	16	29	17	23	15	27	223
August, ...	15	28	9	22	12	30	12	27	21	31	207
September, ...	10	31	15	27	23	12	9	32	0	36	195
October, ...	9	29	12	28	0	44	13	28	16	18	197
November, ...	13	27	9	28	20	29	20	25	30	13	214
December, ...	11	34	15	28	26	22	10	33	16	23	218
Total, ...	139	335	137	369	165	338	152	351	173	319	2478

(Signed) J. K. WALTER,
Civil Assistant Surgeon,
Rungpore.

REPLIES to QUESTIONS at page xxvii, by BABOO UNDER CHUNDER
SEN.

Replies of Baboo
Under Chunder Sen.

Answer 1st.—No.

Answer 2nd.—Kali Chunder Baboo, Karn Chunder Baboo,
Sewba Chunder Baboo, and many others.

Answer 3rd.—None that I am aware of.

Answer 4th.—The want of Vaccinators, and a good supply of
genuine lymph.

* For the month of June 1845 no record can be found.

*Dr. J. Murray, to
D. Stewart, Esq.,
dated 6th May, 1850.*

FROM DOCTOR J. MURRAY,

Civil Surgeon, Agra,

TO D. STEWART, Esq.,

Superintendent General of Vaccination, Calcutta.

Dated 6th May, 1850.

SIR,

In answer to your circular of the 18th March 1850 I have the honor to state, 1st, that there has not been any extensive Epidemic attack of Smallpox at Agra since my arrival in May, 1848. There have been a few cases during the cold season, but they disappeared as the hot season advanced. Inoculation is not publicly practised here. The appearance of the disease appears connected with the season of the year. Its diffusion depends on contagion. The more general employment of Vaccination would be more beneficial and politic than rendering Inoculation penal. If Officers were specially appointed to vaccinate and to travel through the districts during the cold season, the practice would become more general than at present.

2. The mortality last year, from Smallpox in the City of Agra, was 59 Hindoos and 16 Mussulmen, and up to the 17th April this year 14 Hindoos and 6 Mussulmen.

3. There are no *Ticcadars* at work at Agra.

4. I have generally found the Natives very willing to have their children vaccinated. In 1848 I vaccinated the children of the Ranee of Dhur, and immediately all the chief people of the State and several hundreds of the people brought their children to be vaccinated. Appended is a copy of the Vaccine Returns for the last 5 years. There is a falling off in the accompanying table in 1849 in consequence of the lymph being bad, only producing a small vesicle which faded on the 5th or 6th day. This was the course from several crusts procured from various sources. The lymph procured this season was good and the number vaccinated has been 446. Two Vaccinators have been employed, but Mr. DeCruze the Sub-Assistant Surgeon, Mr. Watson the Apothecary, and Baboo Dhurmo Doss Bose Sub-Assistant Surgeon in the Dispensary, have vaccinated as well as myself.

I have the honor to be, &c..

(Signed) J. MURRAY, M. D.,

Civil Surgeon.

AGRA,
6th May, 1850. }

RETURN of Vaccination of the Civil Station of AGRA from 1845
to 1849.

Return of Vaccina-
tion of the Civil Sta-
tion of Agra from
1845 to 1849.

Years.	Months.	Success- full.	Unsuc- cessful.	Doubtful.	Total.
1845.	January,	89	32	0	121
	February,	42	23	6	71
	March,	18	18	8	44
	April,	2	8	0	10
	May,	0	0	0	0
	June,	0	0	0	0
	July,	0	0	0	0
	August,	0	0	0	0
	September,	0	0	0	0
	October,	0	0	0	0
	November,	1	10	0	11
	December,	27	17	11	55
	Total,	179	108	25	312
1846.	January,	64	29	4	97
	February,	67	34	3	104
	March,	47	23	0	70
	April,	14	25	0	39
	May,	0	0	0	0
	June,	0	0	0	0
	July,	0	0	0	0
	August,	0	0	0	0
	September,	0	0	0	0
	October,	0	0	0	0
	November,	0	19	0	19
	December,	8	21	9	38
	Total,	200	151	16	367
1847.	January,	99	24	0	123
	February,	116	29	0	145
	March,	99	30	0	129
	April,	56	37	0	93
	May,	10	15	0	25
	June,	0	0	0	0
	July,	0	0	0	0
	August,	0	0	0	0
	September,	0	0	0	0
	October,	0	0	0	0
	November,	0	6	0	6
	December,	12	14	6	32
	Total,	392	155	6	553

Return of Vaccination of the Civil Station of Agra from 1845 to 1849.

Years.	Months.			Successful.	Unsuccessful.	Doubtful.	Total.
1848.	January,	.....	.....	87	21	2	110
	February,	.....	.....	73	22	1	96
	March,	.....	.....	38	17	0	55
	April,	.....	.....	13	10	0	23
	May,	.....	.....	0	0	0	0
	June,	.....	.....	0	0	0	0
	July,	.....	.....	0	0	0	0
	August,	.....	.....	0	0	0	0
	September,	.....	.....	0	0	0	0
	October,	.....	.....	0	0	0	0
	November,	.....	.....	0	5	0	5
	December,	.....	.....	24	18	0	42
	Total,.....			235	93	3	331
1849.	January,	.....	.....	52	47	4	103
	February,	.....	.....	61	18	0	79
	March,	.....	.....	23	13	0	36
	April,	.....	.....	0	0	0	0
	May,	.....	.....	0	0	0	0
	June,	.....	.....	0	0	0	0
	July,	.....	.....	0	0	0	0
	August,	.....	.....	0	0	0	0
	September,	.....	.....	0	0	0	0
	October,	.....	.....	0	0	0	0
	November,	.....	.....	0	0	0	0
	December,	.....	.....	10	22	0	32
	Total,.....			146	100	4	250
Grand Total,.....			1152	607	54	1813	
1850.	January,	.....	.....	136	10	12	158
	February,	.....	.....	153	19	3	175
	March,	.....	.....	82	28	3	113
	Total,.....			371	57	18	446

(Signed) JOHN MURRAY, M. D.,
Civil Surgeon, Agra.

REPLIES to QUESTIONS at page xxvii, by BABOO DHURMO DOSS
BOSE,

Sub-Assistant Surgeon, Agra Dispensary.

*Replies to Questions
by Baboo Dhurmo
Doss Bose.*

Answer 1.—I have heard of one or two instances from friends and relations occurring in Bengal, but have never been an eye-witness to any.

Answer 2.—There are two Cashmere Pundits, Amlahs of the Sudder Courts here, who now adopt Vaccination, knowing it to be a prophylactic for Smallpox. They are ignorant of the nature of Inoculation as it is not in practice here.

Answer 3.—Inoculation is not practised in the Upper Provinces. Most of the respectable Hindoos have no confidence in Vaccination.

Answer 4.—It is already known that Smallpox is a contagious disease which occurs once during life, and that no individual is exempt from it; it then naturally follows that its origin and cause is yet a mystery; moreover when we see that the constant practice of Smallpox Inoculation which may be reasonably taken as one of the leading causes of Smallpox visitations does not hold good here, yet although this practice is quite unknown, still it rages epidemically every year, and sometimes with very great virulence.

The chief causes that tend to set it up among the Hindoos of this place, and to maintain and promulgate it in certain localities may be said to be, 1st, contagion, 2nd, want of cleanliness in regard to dress and bedclothes of the patients, 3rd, preserving old garments, charpoys and cots used by them, 4th, ill-ventilated and crowded nature of their dwelling-places.

(Signed) DHURMO DOSS BOSE,
Sub-Assistant Surgeon.

FROM DR. K. W. KIRK,

Civil Assistant Surgeon, Bareilly,

TO DR. STEWART,

Vaccinator General.

*Dr. K. W. Kirk
to Dr. Stewart, dated
23rd May, 1850.*

Dated 23rd May, 1850.

SIR,

In reply to your letter of the 18th March last, I have the honor to acquaint you that in the Bareilly district there is no such thing as Inoculation practised, and scarcely is it known except as a

Dr. K. W. Kirk
to Dr. Stewart, dated
23rd May, 1850.

hearsay, with the exception of some tribes who inhabit the Turaie, who have scarcely any communication with the rest of the world. Among them Smallpox is sometimes severe, and they may borrow the idea of Inoculation from the hill people as they reside not far from them, (and the hill tribes do practice this.)

2. I have five Vaccinators under me who have worked very zealously for the time you mention (12 or 18 months.) We have had sharp outbreaks of Smallpox in this time, arising in localities quite detached, (the accompanying fever being typhoid.)

3. I know not whether any vaccinated person has taken Smallpox, and died of it, but I know that the impression of the people is to the contrary. Moreover that Vaccination is becoming more popular than it was, is evident from the fact that a few persons have applied for it; 32 poor people applied in the district for it last year, and applications have been continued since, and I think a small amount of such evidence of its increasing popularity is preferable to heavy returns of figures where the operation is half forced.

4. The Civil Officers have done much of late by referring to the subject when Native landholders visit them, to enable them to spread a proper idea of the object of Vaccination among their villages.

5. Our greatest drawback is the number of unsuccessful cases, and this will be a continued source of disappointment as long as my supply of *fresh European matter* is given so limitedly as hitherto, where Vaccination is doing good as at Bareilly, if its spread be an object, it is surely worth while to be liberal with fresh virus from Europe, especially as a deal must be expended in fruitless efforts at the beginning of each season.

I have the honor to be, &c.,

(Signed) K. W. KIRK,
Civil Assistant Surgeon.

BAREILLY, }
23rd May, 1850. }

ABSTRACT of the Numbers vaccinated in the BAREILLY DISTRICT
during the following years.

Bareilly, 23rd May, 1850.

Abstract of the
Numbers vaccinated
in the Bareilly Dis-
trict during the years
1844 to 1849, dated
23rd May, 1850.

Months.	1844.	1845.	1846.	1847.	1848.	1849.	Remarks.
January,	156	119	89	133	155	27	About one-half of these numbers repre- sent successful cases.
February,	132	106	62	152	149	197	
March,	156	105	98	158	83	311	
April,	145	96	120	164	86	219	
May,	130	84	113	157	56	54	
June,	114	66	86	68	58	114	
July,	48	46	0	0	0	89	
August,	0	0	0	0	0	98	
September,	0	0	0	0	0	0	
October,	21	22	42	18	0	0	
November,	45	46	97	73	20	61	
December,	64	112	109	39	167	91	
Total vaccinated } each year,	1011	802	816	962	774	1261	

(Signed) K. W. KIRK,
Civil Assistant Surgeon and Superintendent.

No. 275.

FROM DR. G. N. CHEEK,

Assistant Surgeon, Bancoorah,

TO D. STEWART, Esq.,

Supdt. Genl. of Vaccn. and Offg. Secy. to the Committee, Calcutta.

Dated 31st May, 1850.

Dr. G. N. Cheek to
D. Stewart, Esq.,
dated 31st May, 1850.

SIR,

I have the honor to acknowledge the receipt of your letter dated 18th March 1850, and in reply beg to say, in my opinion, the practice of Inoculation in a great measure is the cause of the Epidemic Smallpox among the Native population, as the *Ticcadars* are generally an ignorant class. It is the practice among them to inoculate at once the whole residents of a village (who were not inoculated before) without considering the ages of the persons, and they do not care whether the cases are successful or otherwise, neither do they repeat the Inocula-

*Dr. G. N. Cheek to
D. Stewart, Esq.,
dated 31st May, 1850.*

tion if the case be unsuccessful. No confidence can be placed in the virus the *Ticcadars* use, as they keep a small quantity of the matter on a little bit of cotton, with this they inoculate 400 or 500 men ; in case of their virus being dry they mix water with it. It is therefore very doubtful whether the inoculated take the disease or not. This is one cause of such fearful mortality by Smallpox in this country. I cannot possibly say whether the people of this country will agree to Vaccination or not. The answers to the queries of the Committee, given by the respectable community of this Station, are herewith enclosed for your information.

2nd.—There is no statement kept in this district of the number of deaths which annually take place in Smallpox. On receipt of your letter under acknowledgment I requested the Magistrate to furnish me with an account of deaths from this disease ; from the report he has obtained through his Darogahs, I find 443 deaths occurred in 1849. The Smallpox has broken out in this district from last May and is still raging to some extent in several parts of the district. The Magistrate has issued orders to the Darogah to send me statements of deaths from Smallpox monthly. If I get these they shall be forwarded.

3rd. There are many *Ticcadars* in this district, the number of which I cannot ascertain. I have a Native Vaccinator under me, and no death from Smallpox has occurred among the persons vaccinated by him.

4th. There were 1,164 persons vaccinated under my superintendence in the last 5 years, viz., from 1845 to 1849, and no deaths have occurred among the above number.

5. I do not think it would be prudent to prevent Inoculation by any Legislative Enactment until you are in a position to employ Vaccinators in various parts of the district ; and even then it would, I think, be an uncalled-for measure until the respectable classes consent to have their families vaccinated.

6. The delay in replying to your letter has arisen from the dilatory manner the answers to my various queries have been furnished.

I have the honor to be, &c.,

(Signed) G. N. CHEEK,

Assistant Surgeon.

BANCOORAH, }
The 31st May, 1850. }

FROM BABOO TARUCKNATH GHOSE,
TO DR. G. N. CHEEK,

Civil Assistant Surgeon, Bancoorah.

Dated 5th April, 1850.

*Baboo Tarucknath
Ghose to Dr. G. N.
Cheek, dated 5th
April, 1850.*

SIR,

I have the honor to acknowledge your letter of the 30th ultimo, and in reply to the queries sent by you I beg to return the subjoined answers.

1. I have heard of cases in which lives have been lost immediately after Inoculation, but such cases are very rare. Inoculation is generally considered very safe by the Natives of this country as it does not require any repetition after stated periods as in Vaccination; however I have known of persons having the Smallpox in advanced ages, though inoculated in their infancy.

2. Vaccination has been introduced in several Hindoo families at Calcutta, but whether by way of experiment or otherwise, I cannot say; having lost a child by Inoculation, I had another vaccinated in my family about 2 years ago.

3. Natives generally bear an aversion to Vaccination. Those who are favourably disposed to it are so few, that when compared with the other the number is very trifling, and I cannot therefore say that a favourable opinion is entertained in the Native community of Vaccination.

4. I am not aware of the causes which produce the disease among the Natives.

I have the honor to be, &c.,

(Signed) TARUCKNATH GHOSE.

BANCOORAH,
The 5th April, 1850.

}

FROM ASSISTANT SURGEON R. CALLUM,

In charge of the Medical Duties, Hazareebaugh,

TO D. STEWART, Esq., M. D.,

Supdt. Genl. of Vaccn. and Offig. Secy. Smallpox Committee.

Dated 1st June, 1850.

*Assistant Surgeon
R. Callum to D.
Stewart, Esq., M. D.,
dated 1st June, 1850.*

SIR,

I have the honor to acknowledge the receipt of your Circular of the 18th March last, and accompaniment, requiring me to furnish you with information in regard to the "origin, mode of diffusion,

*Assistant Surgeon
R. Callum to D.
Stewart, Esq., M. D.,
dated 1st June, 1850.*

and extent of the ravages of the Smallpox among the Native population" of the district of Hazareebaugh.

2nd. I regret that so much delay should have occurred in the transmission of my reply, but a reference to the accompanying correspondence which has passed between me and the Principal Assistant at Hazareebaugh, on the subject of your enquiry, and which is transmitted in original, will shew you that it has been unavoidable.

3rd. On receipt of your Circular, I immediately addressed the Principal Assistant for information on the several points detailed in my letter of the 25th March last, and only a few days ago, I received the Statistic Returns called for from the several Thanadars of this district in reply to my queries.

4. I have had a Summary made of these Returns which I beg herewith to append and submit for consideration of your Committee as the contents are interesting. You will thence observe that last year, simultaneously with the spread of Smallpox, a disease, called by the Natives "*Jugdumma*," or Cowpox, prevailed to a great extent among the cattle of this district, and carried off several hundred heads; that Smallpox never proves very fatal to the inhabitants of these hilly parts; and that it is introduced every year; in the cold season by Inoculators, who come hither regularly on tour from Bengal and Behar, and having associated with themselves individuals of the "mallee" caste (who are supposed to exercise a beneficial influence in this disease) proceed over the whole country inoculating almost every child, and levying from each a tax, (viz., 4 annas for a boy, and 2 annas for a girl.)

5. It is said that none of these cases have lately proved fatal. But it is unquestionable, that the ravages of the Smallpox follow in the traces of these people. Children and grown-up persons who may not have been vaccinated catch the disease then, and *many of them are said to die*. These practitioners return to their homes in April; but the Smallpox continues to prevail until the rains, when it ceases, to be renewed, however, by the Inoculators re-commencing their annual tour.

6. It might be very easily managed by engaging a few of these "mallees," as Vaccinators to introduce Vaccine throughout this country; but you will observe from Captain Simpson's letters, that there has not been a Vaccinator employed in this district for the last nine years. I cannot ascertain why his services were dispensed with; and Captain Simpson has no better information.

7. I have always found the inhabitants were quite ready to have their

children vaccinated, and I am confident that any number of "mallees" (or the inoculating practitioners) could be engaged at about 5 Rupees *per mensem* to practice Vaccination. This system I would strongly recommend being adopted, and it could be carried out successfully were orders issued to the "Agent to the Governor General S. W. Frontier" on the subject. The several Medical Officers of the Agency, acting with the support of the Agent which, in so good a work, they would be sure to have, could not fail to effect their object. This being an Extra Regulation Province, to which the general laws do not apply, I could not advise the introduction of one which would put a stop to Inoculation.

8. If the Natives are satisfied that Vaccination is preferable, they will cheerfully adopt it of their own accord, and it would simply rest with the Superintendent of the Vaccinators to see that his subordinates did their duty satisfactorily, so as to give no offence to the Native customs or prejudices unnecessarily.

I have the honor to be, &c.,

(Signed) R. CALLUM,

Asst. Surg. in charge of the Medl. Duties,

Hazareebaugh.

HAZAREEBAUGH, }
1st June, 1850. }

REPLIES to QUESTIONS at page xxvii, by BABOO D. MOOKERJEE.
THROUGH DR. J. T. PEARSON, PRESIDENCY SURGEON.

*Replies to Questions
by Baboo D. Mookerjee,
through Dr. J. T.
Pearson.*

1. He has heard of such, but does not know himself of any cases.

2. His own and the Tagore Family adopt Vaccination, and in his family no instance of Smallpox has occurred (except one, whose mother refused to have him re-vaccinated) since they have followed Vaccination.

3. Almost all do.

4. He attributes its production to the practice of Inoculation by the *Ticcadars*, and thinks it kept up by the closeness of the houses, the filthy state of the town, tanks, inefficient drainage, and want of a proper supply of clean pure water.

(Signed) J. T. PEARSON,

Presidency Surgeon.

*Dr. T. C. Hutchinson
son to D. Stewart,
Esq., dated 16th May,
1850.*

FROM DR. T. C. HUTCHINSON,

Civil Assistant Surgeon, Shahabad,

TO D. STEWART, Esq.,

Supdt. Genl. of Vaccn. and Secy. to the Smallpox Committee.

Dated 16th May, 1850.

SIR,

I have now the honor to reply to your letter of the 18th March ultimo, having only this day received from the Magistrate of Shahabad, his reply to the several queries put to him on the subject.

A copy of his letter is herewith appended from which the Special Committee will observe that the Natives are most averse to and have no faith in the benefits to be derived from Vaccination, whereas they have great faith in the benefits of Inoculation as a preventative from after attacks of Smallpox.

2. Up to the present date Smallpox has been less prevalent than usual this season ; I have only had one case in the jail containing nearly 800 prisoners, and that case had the fever upon him on his committal by the Magistrate. I feel convinced that the Natives have no faith in Vaccination, and the *Ticcadars* who gain their living by inoculating, use all their efforts to keep up this prejudice against Vaccination ; and there is no doubt that the Natives know, by experience, that they receive protection by Inoculation, whilst they do not seem to be aware that each person inoculated is a centre of infection to all his neighbours. I have great difficulty in persuading the Natives to have their children vaccinated. This is much to be regretted, for I fear that so long as this prejudice in favour of Inoculation exists, Smallpox will continue to rage annually with more or less virulence, and the efforts used by the Government to check its ravages by introducing Vaccination, will be rendered to a very great degree futile.

3. Moreover I do not think, that however desirable, it will be impossible for the Government to put down Inoculation by any legislative enactment. There is not the least doubt that such a measure, if practicable, would be attended with the best effects in checking the ravages of this most dreadful disease.

4. The filth and total want of ventilation in all the Native towns and villages is extreme, and the wonder is that when Epidemics, like Smallpox and Cholera prevail, their ravages are not much greater than they are. I herewith append a Tabular statement of the results of Vaccination in this district during the past five years.

Months.	1845.		1846.		1847.		1848.		1849.	
	Vaccinated.	Successful.	Vaccinated.	Successful.	Vaccinated.	Successful.	Vaccinated.	Successful.	Vaccinated.	Successful.
January, ...	15	12	17	11	16	2	12	6	19	6
February, ...	17	11	15	9	17	12	14	6	12	9
March,	16	15	16	13	16	13	13	5	14	9
April,	15	14	19	13	17	14	24	16	14	8
May,	15	12	16	12	14	11	8	3	12	7
June,	16	12	15	12	16	12	9	5	10	6
July,	16	12	17	13	14	10	10	6	9	5
August,	14	11	15	11	15	12	11	7	11	7
September,	15	11	14	10	16	12	10	6	9	6
October, ...	16	12	16	10	16	12	10	6	12	6
November,	14	11	16	10	14	10	10	5	14	1
December,...	16	12	15	10	14	9	10	4	6	6
Total, ...	185	145	191	134	185	135	141	75	142	76

Dr. T. C. Hutchinson to D. Stewart, Esq., dated 16th May, 1850.

ARRAH, } (Signed) I have, &c.,
16th May, 1850. } T. C. HUTCHINSON,
Civil Surgeon.

No. 104.

FROM THE MAGISTRATE of Shahabad,
To T. C. HUTCHINSON, Esq.,

Civil Assistant Surgeon, Shahabad.

Dated 14th May, 1850.

The Magistrate of Shahabad to T. C. Hutchinson, Esq., dated 14th May, 1850.

SIR,

I have the honor to acknowledge the receipt of your letter under date the 27th March last, calling for certain information required by the Superintendent of Vaccination, and in reply to acquaint you that a translation of the questions, submitted by the Secretary to the Committee, was forwarded to the leading Members of the Hindoo Community, whose answers, I regret to observe, appear extremely vague and unsatisfactory.

2nd. In reply to the first question, as per margin, the Raja of Doomroon, Baboos Ra-

1st. Do you know any instance of the Small-pox being introduced into a family by a *Ticcadar*, and the disease thereafter propagating itself and producing death or deaths in a family?

wasur Sing, Koonwar Sing and Dyal Sing reply that they do not

*The Magistrate of
Shahabad to T. C.
Hutchinson, Esq.,
dated 14th May, 1850.*

think that the disease is engendered by the *Ticcadars*, and if sufficient care be taken the disease does not propagate itself.

3rd. In reply to the second question, noted in the margin, they state that no respectable Hindoo families adopt Vaccination and discourage Inoculation, but on the contrary, they discourage the former and adopt the latter.

2nd. Name any number of respectable Hindoo families, from your knowledge, in Shahabad who now adopt Vaccination and discourage Inoculation by precept and example.

The third question is answered in the second.

To this question the Natives give no decisive answer ; they allude more to the cause of a person being inoculated late or early in life than to the localities which might engender and promulgate disease ; they state that in their several estates there has been less disease this year than usual.

4th. What do you think are the chief causes which tend to set up Smallpox among the Hindoos of Shahabad and to maintain and promulgate it in certain localities ?

4th. From the investigation I have made through the Police I find that the disease commenced showing itself in Chowsah, in October, and in the other thannahs noted in the margin about February ; that the disease has been less virulent this year than in former years, that in Thannahs Chowsah, Beelowtee and Ekwaree of 982 cases 74 are said to have been fatal. In the town of Arrah there are nine *Ticcadars*, and in the Pergunnah about 50.

5th. With reference to the postscript of your letter, I would add that I believe Vaccination has not received in this district such success as to induce the Natives to place implicit trust in the practice of Vaccination ; and in this opinion, I am strengthened by the difficulty ever found in procuring good and fresh Vaccine when required. The superstitious belief amongst the Hindoos, with respect to Vaccine, again much inclines them towards their old system of Inoculation.

I have the honor to be, &c.,

(Signed) E. T. RADCLIFFE,
Magistrate.

(True Copy,
(Signed) T. C. HUTCHINSON,
Civil Surgeon.

14th May, 1850.

FROM ANDREW ROSS, Esq.,
Civil Surgeon, Delhie,
 To D. STEWART, Esq.,
Superintendent of Vaccine.

*Surgeon A. Ross to
 D. Stewart, Esq.,
 dated 4th April, 1850.*

SIR,

Dated 4th April, 1850.

I have the honor to acknowledge the receipt of your letter of the 18th ultimo requesting information as to the origin, mode of diffusion and extent of the recent ravages of Epidemic Smallpox among the Native population, &c.

1st.—Of course I can afford no information as to the present Epidemic in Bengal, the few remarks which follow have reference to Delhie and its neighbourhood.

2nd.—Since the year 1839, the Smallpox has raged as an Epidemic three times, viz., in 1842, 1846 and 1849, on all of which occasions a considerable number of the inhabitants, principally children, were carried off.

3rd.—Inoculation for Smallpox is not practised in the Delhie Territory, and the only precaution against the ravages of that disease, thought necessary by the Hindoos, may be gathered from the following Extract from my Annual Report for the year 1842.

4th.—“The number of Vaccinations during the year under review amounting to 561 is considerably greater than in any former year, for in 1840 it was 180 and in 1841 only 164, but still it is lamentable to think how very few, comparatively, avail themselves of the prophylactic. Of course the Hindoo inhabitants will very seldom bring their children for Vaccination, they in general believing that it would be an unpardonable sin to interfere with the operations of the Almighty ; accordingly, instead of taking any reasonable precaution against this terrible scourge, they content themselves with making a pilgrimage to a celebrated shrine of the Goddess *Situla*, which is situated close to the small Civil Station of Goorgaon, about 20 miles from this place—the priests of which reap a rich harvest from the offerings of the credulous worshippers.”

5th.—The Hindoos of the present day follow the course described in the last para., and it is seldom indeed that respectable Hindoos can be prevailed upon to allow their children to be vaccinated.

6th.—The Mussulmans have no objection to the practice, and many gentlemen of that persuasion apply to me to vaccinate their children, particularly in seasons when the Smallpox is raging in Delhie.

7th.—There are three Vaccinators employed under me, one of whom is stationed at Revaree, where however he finds it more difficult to find subjects for Vaccination than his brethren at Delhie.

Surgeon A. Ross to
D. Stewart, Esq.,
dated 4th April, 1850.

8th.—Besides these Vaccinators I forward supplies of Vaccine matter to the Native Doctors of the Civil Stations of Goorgaon and Rohtuc; but I am sorry to say they find very few who will avail themselves of the prophylactic.

9th.—I enclose a table shewing the number of Vaccinations at this Station for every month of the last five years.

I have the honor to be, &c.,

(Signed) A. Ross,
Civil Surgeon.

DELHIE,
The 4th April, 1850.

STATEMENT shewing the Number of Vaccinations at the Civil Station of DELHIE for
five years, viz., 1845, 1846, 1847, 1848 and 1849.

Months.	1845.			1846.			1847.			1848.			1849.			Remarks.
	Successful.	Unsuccessful.	Total.	Successful.	Unsuccessful.	Total.	Successful.	Unsuccessful.	Total.	Successful.	Unsuccessful.	Total.	Successful.	Unsuccessful.	Total.	
January,...	80	23	103	219	39	258	131	16	147	267	38	305	185	49	234	
February, ...	97	23	120	183	57	240	89	19	108	260	63	323	328	60	388	
March, ...	59	20	79	230	28	258	181	36	217	283	38	321	270	52	322	
April,	0	19	19	167	87	254	22	15	37	39	20	59	0	0	0	
May,	0	10	10	28	18	46	0	0	0	0	0	0	0	0	0	
June,	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
July,	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
August, ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
September, ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
October, ...	0	13	13	0	0	0	2	2	4	5	0	5	0	0	0	
November, ...	9	31	40	30	6	36	89	18	107	53	18	71	1	18	19	
December, ...	74	29	103	97	29	126	179	22	201	147	30	177	38	26	64	
Total, ...	319	168	487	954	264	1218	693	128	821	1054	207	1261	822	205	1027	

(Signed) A. Ross,
Civil Surgeon.

FROM GEORGE PATON, M. D.,

Civil Surgeon, Allyghur,

TO D. STEWART, Esq.,

*Superintendent General of Vaccination.**Dated 29th May, 1850.**Dr. Paton to D.
Stewart, Esq., dated
29th May, 1850.*

SIR,

I have the honor to acknowledge the receipt of your communication dated the 18th of March last, and I have to regret the delay that has taken place in replying. I may explain that the delay has been caused by my anxiety to obtain information through the Magistrate, on the various points noticed in your communication. The result of the references made by the Magistrate to the various Police and Revenue Officers in the district as well as to several Hukeems and Baidis, is very unsatisfactory, and as it exhibits an extraordinary amount of ignorance, prejudice and superstition, I think it better to forward the vernacular correspondence *in original* than to attempt to condense the substance for the information of the Committee. It appears to me that until education be more generally diffused amongst the Natives of India, it would be useless to rule against the practice of Inoculation, and until measures can be adopted for providing the means of Vaccination to all classes, it would scarcely be justifiable to interfere by proscribing the practice of Inoculation.

2. I enclose a Statement shewing the number of persons vaccinated in this station and district during the last five years. I have only one Vaccinator, and I seldom succeed in introducing the Vaccine disease before the middle of December of each year; and when it is recollected that the disease gradually ceases to propagate itself beyond the middle of April, with such slender means much cannot be expected in that short period, being about four months. Of late I have observed a greater desire amongst the higher classes to have their children vaccinated and many bring them to me from a great distance for the purpose. The lower classes, however, are still in many places altogether indifferent and not unfrequently, determinedly opposed to the Vaccination of their children. I have even known some of my servants refuse to continue in my service rather than submit to have their children vaccinated by me. As the higher classes shew an increasing willingness for their children being vaccinated it is to be expected the lower classes would speedily be influenced by them and follow their example. Better or more efficient means are also necessary for furnishing an abundant and ready supply of

Dr. Paton to D.
Stewart, Esq., dated
29th May, 1850.

Vaccine virus in the shape of crusts and lymph ; and as the supply must come from England I would beg to suggest the advantage of its being sent overland bi-weekly to every Superintending Surgeon of the Army to be distributed by him to the Medical Officers serving under him.

I have the honor to be, &c.,

(Signed) G. PATON, M. D.,
Civil Surgeon, Allyghur.

ALLYGHUR, }
29th May, 1850. }

STATEMENT shewing the number of Persons vaccinated in Zillah Allyghur during
the years 1845, 1846, 1847, 1848 and 1849,
Allyghur, 24th May, 1850.

	1845.			1846.			1847.			1848.			1849.			Remarks.
	Successful.	Unsuccessful.	Total.	Successful.	Unsuccessful.	Total.	Successful.	Unsuccessful.	Total.	Successful.	Unsuccessful.	Total.	Successful.	Unsuccessful.	Total.	
Christians, ...	13	3	16	13	4	17	6	2	8	12	6	18	7	2	9	
Mahomedans,	221	42	263	183	48	231	301	34	335	170	31	201	234	23	257	
Hindoos,	393	86	479	291	45	336	353	69	422	257	33	290	1394	33	1427	
Total, ...	627	131	758	487	97	584	660	105	765	439	70	509	1635	58	1693	

ALLYGHUR, }
24th May, 1850. }

(Signed) G. PATON, M. D.,
Civil Surgeon.

NEELKANTH'S ANSWERS to the SMALLPOX QUESTIONS.

TRANSLATED BY THE REV. J. LESLIE.

*Neelkanth's Answers
to the Smallpox Questions,
translated by
the Rev. J. Leslie.*

Answer to Question 2nd.—I recollect that, amongst my own people, (the Mahrattas,) when any child was seized with the Smallpox naturally, the mother, or whoever occupied the mother's place, repaired to the Goddess of this Disease to worship her. The water which was poured on the head of the Goddess, having been taken up from her feet, was brought home, and a small portion of it given to the child to drink. No *Soodur* or any such person was allowed to touch the child. At the door of the room, in which the child happened to be, a vessel was placed containing cow's urine and a branch of the Neem-tree, so that, whoever from without might wish to enter, might first by means of the latter, sprinkle his feet out of the former. When the child recovered, it was first bathed, then taken with music to the Goddess, and after the performance of worship, brought home.

Answer to Question 5th.—In the Zillah of Jounpore, I saw a Doctor, who had been appointed by Government, going from village to village, lancing the children. It is likely that he vaccinated them. Those who had their children lanced, subjected them to the same treatment as when the disease came naturally.*

I have nothing to reply to questions 1, 3, and 4.

This has been written on the part of Neelkanth, &c. &c.

EXTRACT of a letter from MR. J. W. DALRYMPLE, Under Secretary to the Government of Bengal, Judicial Department, to the MEDICAL BOARD, No. 669, dated 23rd April, 1850.

I am directed by the Deputy Governor of Bengal to forward to your Board the accompanying letter, No. 112, dated 15th instant, from the Magistrate of Jessore, relative to the appointment of a Vaccinator at that station.

EXTRACT of a letter from MR. BEAUFORT, Magistrate of Jessore, to the Secretary to the Government of Bengal, No. 112, dated 15th April, 1850.

"The Civil Assistant Surgeon has reported to me that the Native Vaccinator, on this establishment, has been *inoculating* persons with the *Smallpox*. On enquiry I find that the man acknowledges the fact, and that many instances of Smallpox have recently occurred in the places

*Extract of a letter
from Mr. J. W. Dal-
rymple, Under Secre-
tary to the Government
of Bengal, Judicial
Department, to the
Medical Board.*

*Extract of a letter
from Mr. Beaufort,
Magistrate of Jessore,
to the Secretary to the
Government of Ben-
gal.*

* This refers to food, dress, ablutions, religious ceremonies, &c. &c.

*Extract of a letter
from Mr. Beaufort,
Magistrate of Jessore,
to the Secretary to the
Government of Ben-
gal.*

where he has pretended to be vaccinating. Dr. Palmer requests that he may be dismissed, and it is clear that no further confidence can be placed in him. In my opinion, he has always been inert and useless. I have, therefore, dismissed him, and I have the honor to request that the Medical Board may be instructed to send up another Officer duly qualified."

*Captain C. E. Bur-
ton to the Superinten-
dent of Vaccine.*

FROM CAPTAIN C. E. BURTON,

Political Agent in Harowtee,

TO THE SUPERINTENDENT OF VACCINE,

Calcutta.

Dated 6th May, 1850.

SIR,

In compliance with the request contained in your letter dated the 8th November last, forwarding some Vaccine matter, I have the pleasure to enclose a report prepared by Native Doctor Mohamed Naeem Khan, exhibiting the result of his performances during the past season, when he accompanied me on circuit.

2. I supplied the Native Doctor at Boondée with a portion of Vaccine crust and lymphs but have obtained no return from him. He has, however, had several cases, and I have been given to understand that it is the intention of the Prince of that Territory to have his infant son vaccinated in the ensuing cold weather.

3. It is only within the last six years, Vaccination has been introduced into these States; and considering the aversion the people usually manifest towards innovations, the success has been encouraging. Smallpox is very virulent, annually hundreds in these Provinces fall victims to it; but as Inoculation is not practised it is to be expected when the advantage of Vaccination becomes more generally diffused and ascertained, this prophylactic will be extensively adopted.

4. These considerations lead me to believe that if an expert Brahmin Vaccinator were stationed here under the Medical Officer, the benefits of Vaccination would be most advantageously extended.

I have the honor to be, &c.,

(Signed) CHARLES E. BURTON,
Political Agent.

KOTAH, HAROWTEE PO-
LITICAL AGENCY,
6th May, 1850. }

VACCINE RETURN of the Kotah Agency, from 1st December 1849
to 30th April, 1850.

Vaccine Return of
the Kotah Agency.

Kotah, 5th May, 1850.

Station.	Corps and Medical Officers.	Successful.	Unsuccessful.	Doubtful.	Total.	Subjected to.	Grand Total.	Remarks.
Kotah.	<i>Native Doctor.</i> Mahomed Naeem Khan of Jhallawar, From crusts received in December last from Superintendent of Vaccination, Calcutta, the lymph failed.	50	39	20	109	0	109	{ This Return includes children vaccinated at Jhallawar, Boondie, Indurghur and other places in Harowtee, at which the Political Agent encamped during the last circuit.

(Signed) CHARLES E. BURTON,
Political Agent, Harowtee.

(Signed) MAHOMED NAEEM KHAN,
Native Doctor of Jhallawar.

FROM DR. N. CHEVERS, M. D.,
Civil Asst. Surg. Chittagong,

TO DR. D. STEWART,
Secy. Smallpox Committee.

*Dr. N. Chevers to
Dr. D. Stewart, dated
20th June, 1850.*

Dated 20th June, 1850.

DEAR SIR,

In accordance with your communication of the 18th of March, I have much pleasure in furnishing you with whatever particulars I have been able to ascertain regarding the history of the Epidemic Smallpox as it occurred in the station and district of Chittagong, in the beginning of the present year. I regret extremely that so much delay has occurred in the preparation of the Statement, but this

*Dr. N. Chevers to
Dr. D. Stewart, dated
20th June, 1850.*

was unavoidable, for scanty as the information with which I supply you is, much time was required in making the necessary enquiries, and especially in attempting to ascertain the number of deaths from Smallpox which occurred in the town during the last twelve months.

2. With regard to the rise and *origin* of the late Epidemic amongst us, as nearly as I can learn, Smallpox first made its appearance early in January last, at the village of Raiojan on the Hattazaree road, about ten *kos* to the north of Chittagong. It shortly afterwards broke out at Bancoorah in Shumah Putteah, which is situated to the eastward of this.

3. It singularly occurred that the first case which presented itself at Chittagong was that of a lodger in the house of the Native Vaccinator, in the neighbourhood of the jail. This man had recently come down from Rungamuttia, having taken the infested village Raiojan on his way ; he was attacked with Smallpox about seven days after his arrival. I visited and prescribed for this man. The disease, however, assumed the confluent type and proved fatal. The next case occurred in the near vicinity of the first, at the house of Hossein Muddun Mahomed, one of the Collector's Nazims. After this the spread of the disease through the Native quarters of the town (the first cases occurring nearly centrally) could not be distinctly traced. Fortunately the Jail was entirely spared.

4. I regret that I am unable to inform you whether the late scourge was introduced to the villages of this district by Epidemic causes, by direct contagion or by the unguarded employment of Inoculation. It is probable, however, that the two latter influences were both operative. The disease had committed considerable ravages at Burrisaul and Dacca (between which Towns and Chittagong an almost continued intercourse and traffic are carried on during the cold season) sometime before it appeared in our vicinity.

5. At the same time it is certain that as soon as the apprehension, arising from the reports of the unusual severity of Smallpox at Calcutta, Dacca, and elsewhere began, to work upon the people, the *Ticcadars* of this district became extremely active. It is reported, but the statements rest merely upon general rumour, that about 50 persons were inoculated by one *Ticcadar* at Hattazaree, out of which number about 15 children died. It was also stated that at Juscoolah, about 5 deaths occurred out of 40 inoculated, and that about 5 persons died in consequence of Inoculation at Bancoorah. These circumstances how-

ever, if true, have comparatively little weight if the occurrences happened as was probably the case while Variola was at its height. I have succeeded in obtaining from the Magistrate's Office the records of deaths in the town of Chittagong from the 1st January 1849 to the 31st May 1850, (exclusive of that for the month of April 1849, which is missing) but find that they afford no clue whatever to the number of deaths from Smallpox during the late prevalence of the disease, only 4 deaths from Variola having been entered during the period. Two of these cases occurred in young Children in the months of July and August 1849. The other two were cases which occurred within my own observation in March and April 1850. This is partly explained by the fact that the larger proportion of those who were attacked in the town were removed by their friends to the neighbouring Villages so that most of the deaths must have occurred beyond our bounds of mortality. I believe that upon the whole, Chittagong did not suffer very severely from the late Epidemic.

*Dr. N. Chevers to
Dr. D. Stewart, dated
20th June, 1850.*

6. The *Ticcadars* of this district chiefly inhabit the Villages of Buttiaree, Halleshere, Praicoorah, Raiojan, Seeripoore and Sutcaneah, there are supposed to be about 50 or 60 of them in all. I cannot discover that any of them reside in Chittagong, although they practise both out and in the town at every opportunity. The custom is to have all the uninoculated members of a family inoculated at the same time, but it does not appear that any care is taken to keep the children thus infected apart from others. The trade appears to be divided between the Brahmins and the barbers.

7. I regret to state that the minds of the principal Hindoos of this place have received a rather strong bias against Vaccination, in consequence of an unfortunate circumstance which recently occurred in the house of Baboo Ramchunder Rai, one of our most influential Native Officers, who had begun to view this operation with some degree of favour. As the facts have some medical interest, I shall venture to state them in full. On the 26th of February last, Golam Khan, native doctor in the Commissioner's Establishment, vaccinated Miss S. H., a person 17 or 18 years of age. The Doctor informs me that 2 days after Vaccination, the usual appearances denoting the success of that operation began to appear, and he ultimately considered that the case was perfectly successful. He therefore on the 3rd of the following month employed lymph taken from Miss H.'s arm in vaccinating Hurchunder Bose, Bungo Chunder, Esser Chunder and Nubo Chunder, who were then

*Dr. N. Chevers to
Dr. D. Stewart, dated
20th June, 1850.*

residing with Baboo Ramchunder Rai, Deputy Collector. In due time it appeared that the Vaccination had taken in each of these young men, but on the 10th day after the operation, Hurchunder was attacked with Smallpox, and on the 20th day, the other three men became the subjects of that disease. I saw three of these young Natives while they were set apart under the care of Brahmins, (that being the time of the Poojah) and it appeared to me that the signs of recent Vaccination and pustulation were distinct on each of their arms. In two of the cases the disease had assumed the confluent form. Hurchunder and Bungo Chunder died ; the former on the 18th March, 15 days after Vaccination, the latter on the 7th April, about 26 days after Vaccination. On or about the 24th of March, nearly a week after the death of one of the men vaccinated from her arm, Miss H. was attacked with Smallpox. I did not see this young person during her illness as she left the Station before I heard that she had been attacked ; but I understand that the eruption was slight and that it certainly assumed the *modified* form. The foregoing men, whose cases are given above, had only arrived in Chittagong a few days when they were vaccinated. They had left Bickrampore in the neighbourhood of Dana where Smallpox was then very prevalent. It is of course a well known fact that Vaccination does not afford an antidote to Smallpox if employed while that disease is latent in the system. It is possible that each of these four men may have brought the disease with him from Bickrampore, but this opinion certainly begs the presumption that the period of "incubation" of this disease may be considerably longer than is usually believed.*

8. I feel diffident in venturing to give a decided opinion, founded upon limited experience, upon the very important question as to the safety or necessity of putting down Inoculation in this country by Legislative Enactment. It however appears to me that for several reasons the adoption of such a course would be attended at present, if not with positive evil, assuredly with a very uncertain prospect of benefit to the Native Community at large. The only substantial attendant evil exists in the fact that the inoculated person becomes a focus of contagion to those around him who are not protected. The only advantage which Vaccination has over inoculation is that no deaths and no contagion occur from this cause. It is therefore evident, that could the patients be

* Gregory considers the usual duration of the period of incubation to be 12 days, its limits 10 to 16 days.

properly isolated at the time the infection was in operation, Inoculation would only be rendered less preferable than Vaccination by the fact that some 0·20 or 0·25 per cent. of the patients might die in consequence of the operation. Whether this risk might not be diminished, or removed, under proper management, and whether it is in itself at all equal to that of death from infection, after apparently successful Vaccination with deteriorated lymph, are certainly questions which should be duly weighed.

9. The question of the suppression of Inoculation is met at the threshold by the following enquiries. Is it at all certain or probable that the employment of the illegal practice could be entirely prevented now or at any future time? Would not Epidemic Smallpox continue to occur in India even if the *Ticcadar's* trade ceased throughout the country from the present moment? Would the great mass of the population consent to receive Vaccination in the place of Inoculation? I believe that each of these questions must at once be answered in the negative. It is true that safety has been gained at the expense of some lives, but those who have died from Inoculation as well as the consequent spread of infection, must have been principally children, as Inoculation is generally had recourse to at an early age.

10. It is unfortunately a too well established fact that within the last 50 years large tribes of North American Indians have been utterly destroyed by the unrestrained ravages of Epidemic Smallpox. I must venture to submit that the prevention of Inoculation in this country must at present be regarded as the removal of the only essential safeguard against Smallpox which the great mass of the Native inhabitants possess, and must therefore be regarded as a measure which, not being sanctioned either by precedent or by medical reasoning, is to be regarded with the utmost distrust and apprehension.

11. I trust that should the suggestions which I have presumed to offer upon this subject appear to the committee to be worthy of investigation, measures may be taken for ascertaining the proportion of the inoculated to the uninoculated inhabitants throughout the whole of India. I think that a fair inference might be drawn from observations made in the various Jails and Dispensaries, as the larger proportion of prisoners and Dispensary patients belongs to the poorer classes whose habitual carelessness, together with the comparative difficulty which they would experience in paying the fee, (which is, I believe, invariably demanded by the *Ticcadars*) must render Inoculation among them, in a certain degree, less prevalent than in any other classes of Natives with the exception of

*Dr. N. Chevers to
Dr. D. Stewart, dated
20th June, 1850.*

*Dr. N. Chevers to
Dr. D. Stewart, dated
20th June, 1850.*

a small number of wealthy and enlightened persons, resident in the large towns who may approve of Vaccination and employ it.

I have the honor to be, &c.,

CHITTAGONG, }
20th June, 1850. }

(Signed) N. CHEVERS, M. D.,
Civil Asst. Surgeon and Vaccine Supdt.

RETURN of Cases of Vaccination at CHITTAGONG from June
1845 to June 1850.

Year.	Month.	Successful.	Unsuccessful.	Doubtful.	Total.	Remarks.
1845	June,	5	6	„	11	It is noted in the Civil Assistant Surgeon's Remarks that from January to the 31st December 1845, the Station enjoyed a remarkable freedom from Smallpox. The records of Vaccination between July 1845 and April 1847, are unfortunately not discoverable.
„	July,	10	13	0	23	
1847	April,	15	2	5	22	The occurrence of Smallpox this year is not alluded to in the report.
„	May,	39	5	7	51	
„	June,	35	4	7	46	I can find no Records for the remaining 11 months of 1848.
„	July,	22	4	5	31	
„	August, ...	21	3	4	28	Smallpox prevailed in the Town and District from January until the latter end of April.
„	September,...	22	4	3	29	
„	October, ...	21	2	3	26	
„	November, ..	22	3	4	29	
„	December, ...	23	4	5	32	
1848	January, ...	24	4	3	31	
1849	January, ...	20	0	5	25	
„	February, ...	20	4	3	27	
1850	January, ...	0	5	0	5	
„	February, ...	95	18	13	126	
„	March,	122	10	16	148	

FROM C. DEVERINNE, Esq.,*

Carragodah Factory, KISHNAGHUR,

TO DR. D. STEWART.

*C. DeVerinne, Esq.,
to Dr. D. Stewart,
dated 14th May, 1850.**Dated 14th May, 1850.*

DEAR SIR,

I am in receipt of your letter of the 10th instant and shall be happy to give every information in my power on the subject of your communication. I am quite unable to state the number of persons who have been inoculated or have died in this neighbourhood from Smallpox. There are no registers of any kind kept either at the Police Thannahs or by the Native Tusseldars of Villages from which the slightest information that could be depended on can be obtained.

2. It is quite true that I have frequently given orders to turn out the *Ticcadars* from my Villages, particularly from those in my immediate neighbourhood, and I have never found any difficulty in doing so. My neighbours, Mr. Mears of Sindoorree, and Mr. Maclagan of Locknathpore, inform me that they likewise annually give orders to have the *Ticcadars* turned out of their villages, and that not the slightest opposition is made to it. Many of the best class Brahmins and others, who do not adopt Inoculation in their families, are glad to see the *Ticcadars* sent away.

3. The Natives, in this part of the country, I do not think are very partial to Inoculation, nor would they be averse to Vaccination. Mr. Mears this year had one of his children vaccinated and with the matter vaccinated other Native Children, and from them others to the number of about thirty, chiefly the children of the servants and labourers employed about his Factory.

4. There are a few professional *Ticcadars* in this part of the country, generally Brahmins of no very high caste (but not in my own neighbourhood): they charge, I am told, from 2 to 4 annas *per* each person; wealthy Natives give a rupee besides, and if the case be successful, sometimes (but this is rare) make a present of a brass plate, &c., or a piece of cloth of the value of another rupee.

5. I consider it would, indeed, be a great blessing to the country if Inoculation was prevented by law and punished by fine or imprisonment. There would not be the slightest opposition or objection on the part of the poorer Natives to have their children vaccinated, and they would no doubt willingly pay what they now do to the *Ticcadars*, if Vaccinators

* Extensive Landholder and Indigo Planter in Kishnaghur District.—D. S.

*C. DeVerinne, Esq.,
to Dr. D. Stewart,
dated 14th May, 1850.*

were to be sent round the Villages by Government. I think they would be well paid at 4 annas *per* each case. Registers, to be kept at each Thannah, and reports, signed by Tusseldars and head men of the village, could be sent once a week or oftener to the Darogah by the village Chowkedar, when he makes his other usual reports, or some other better plan might be devised hereafter.

6. I think a local Committee might be formed at each Sudder Station of the district to consist of the Doctor, Magistrate, Judge and Collector, and any other respectable European and Native residents to be selected by the Magistrate, and requested to become members of the Committee, who could regulate the different circles of action of the Vaccinators, and who might also be requested to keep registers to check the reports that would be given in at the Thannahs.

Make any use of this letter, or any portion of it that you may think advisable.

Yours, &c.,

(Signed) C. DEVERINNE.

*Surgeon R. Leny
to A. Trotter, Esq.,
dated 12th December,
1816.*

FROM R. LENY, *Surgeon,*

Secretary, Medical Board, CALCUTTA,

TO A. TROTTER, Esq.,

Acting Secy. to Govt. in the Public Department.

Dated 12th December, 1816.

SIR,

The Medical Board have directed me to forward to you, and to request that you will be pleased to submit to the Right Hon'ble the Governor General in Council the annexed copy of a letter, dated the 9th instant, together with the subjoined list of Native Vaccinators and statement of the pensions granted to them, which they have received from Dr. William Russell, lately Superintendent General of Vaccine Inoculation.

2. As it could not have been in the contemplation of the Hon'ble the Court of Directors that the pensions should be withdrawn from the persons in question, who relinquished the practice of Inoculation for the Smallpox, under the positive condition that the pensions that were granted to them should be continued for their lives, the Medical Board cannot doubt that his Lordship in Council will immediately direct that the payment of their pensions shall be continued to them as was stipulated.

3. As these Inoculators are employed in disseminating the Vaccine disease under Dr. Russell, in his present situation of Superintendent of Vaccination at the Presidency, that Gentleman would still appear to be the proper person to receive for them, and to pay to them, the amount of their respective pensions ; and the Medical Board, therefore, respectfully recommend that the Pay Department may be instructed to pay to Dr. Russell in the same manner as was formerly done on account of the pensioners, the aggregate monthly amount of their several allowances.

I have the honor to be, &c.,
(Signed) R. LENY,
Secretary, Medical Board.

FORT WILLIAM, }
12th December, 1816. }

(Copy)

FROM WILLIAM RUSSELL, *Surgeon,*
Supdt. Vaccine Inoculation, Presidency,
TO R. LENY, Esq.,
Secretary, Medical Board.

Surgeon W. Russell
to R. Lenny, Esq.,
dated 9th December,
1816.

SIR,

By the orders of Government, of date the 9th February 1805, confirmed by the Hon'ble the Court of Directors in the Public General Letter dated 23rd April 1807, a monthly "pension for life was granted to certain Brahmin Inoculators on condition of their having relinquished the practice of Variolous for that of vaccine Inoculation, in the town and vicinity of Calcutta."

The allowances of these Native Inoculators were directed to be drawn by the "Superintendent General of Vaccination" under the head of Additional Establishment to his Office, and paid by him to the parties entitled to receive them. Since the situation of Superintendent General has been abolished, payment of his establishment has been refused at the Treasury, and I therefore beg to submit the case to the Medical Board that the necessary orders may be obtained for the continuance of the pensions of the Individuals who are, as heretofore, employed in the manner directed by the Government.

I have the honor to be, &c.,
(Signed) WILLIAM RUSSELL,

CALCUTTA, }
9th Dec , 1816. }

Supdt. Vaccine Inoculation,
At the Presidency.

Return of the Names of Brahmin Inoculators now receiving a Monthly Pension under the orders of Government, dated 9th February, 1805.

RETURN of the Names of BRAHMIN INOCULATORS now receiving a monthly Pension under the orders of Government, dated 9th February, 1805.

* Mudden Thakoor,	16 Rs. a month.	
Kissen Mohon Assistant,	10 ditto,	
Doorgaram,	10 ditto, ...	} Assistants to Brij Paul.
Goluck, son of Rampersad.	10 ditto, ...	
Seeboo Paul,	10 ditto, ...	
Hurrydoss, son of Ramtonoo Ghose,	10 ditto, ...	
Modoo, son of Ramnarain,	10 ditto, ...	
Peritram,	10 ditto, ...	
Tacoordoss Paul, son of Brij Paul,	10 ditto, ...	} Assistants to Joydeb Acharjee.
Gooroopersad Thakoor,	10 ditto, ...	
Ramcant Sein,	10 ditto, ...	

(Signed) R. LENY,
Secretary Medical Board.

Declaration of the Native Inoculators in favour of Vaccine Inoculation, dated 23rd April, 1805.

DECLARATION of the NATIVE INOCULATORS in favour of VACCINE INOCULATION.

Fort William, 23rd April, 1805.

On Friday, the 15th of March 1805, we, the undersigned Smallpox Inoculators, attended at the Native Hospital, and witnessed the Inoculation of Panchcowree and Ramut, two sons of Kulloo Washerman, a Musselman, with fresh Smallpox matter taken on the spot from a boy, on the 9th day of the eruption in the natural way. These children were inoculated in each arm by Brij Paul in the Bengalee manner, and in each fore-arm by Mr. Shoolbred in the English manner, and no doubt can be entertained but they would have taken the Smallpox if they had been susceptible of infection from the matter of that disease. On examination of the child on the 22nd of March no effect whatever appeared to have followed these Inoculations, from which we are satisfied that the children's constitutions had been rendered proof against the infection of Smallpox, by having previously undergone the Vaccine disease in January last, as appeared by the Register kept by Mr. Shoolbred for that purpose.

On the 1st of March, 1805 Brij Paul inoculated his own son, Takoor-doss Paul, with Vaccine matter at the Native Hospital and he regularly

* This man is the sole survivor now.—D. S.

went through the disease. On the 16th of March, he again inoculated this child with Smallpox matter, as above, in the Bengalee manner, but no effect followed this second Inoculation.

*Declaration of the
Native Inoculators in
favour of Vaccine
Inoculation, dated
23rd April, 1805.*

On the 17th of March 1805, Ram Luckun Chuckerbutty, a Brahmin, inoculated with Smallpox matter Gopee, a Hindoo Girl, who had been vaccinated on the 22nd February, and had regularly gone through the disease. But neither did any effect follow this Inoculation. The matter used on this occasion was of an equally genuine nature as the former, and the experiment was made in the Native part of the town for the purpose of shewing some considerable Hindoos the decided power of the Vaccine disease in rendering the constitution unsusceptible of Smallpox.

From the above fair, public, and decisive experiments, we are fully convinced that the Vaccine disease does possess the inestimable power abovementioned, and being equally satisfied that it is attended with no danger, and hardly any inconvenience to the inoculated, we have no hesitation in declaring our opinion that it is a safe and efficacious substitute for the Smallpox, and ought therefore to be generally adopted. A declaration which we make with the greater confidence, as we are not aware of any circumstance which can render the adoption of this mild practise improper for any rank of Hindoos.

(Signed) TWENTY-SIX NATIVE INOCULATORS.

CALCUTTA,
24th March, 1805. }

(True Copy,)

(Signed) JOHN SHOOLBRED,
Supdt. General of Vaccine Inoculation.

FORT WILLIAM, ME-
DICAL BOARD OFFICE, }
2nd April, 1805.

(Signed) FRANCIS BALFOUR,
1st Member, Medical Board.

Published by Command of His Excellency the Most Noble the Governor General in Council.

(Signed) THOMAS BROWN,
Secretary to Government.

The Under Secretary to the Government of Bengal to the Medical Board, dated 6th March, 1850.

No. 340.

FROM THE UNDER SECRETARY TO THE GOVERNMENT OF BENGAL,
TO THE MEDICAL BOARD,
Fort William,

Dated 6th March, 1850.

GENTLEMEN,

I am directed by the Deputy Governor of Bengal to acknowledge the receipt of your letter, No. 59, dated the 28th ultimo, with enclosure, and, in reply, to inform you that, under the recommendation of your Board, and of the Superintendent General of Vaccination, his Honor has authorized, in anticipation of the sanction of the Government of India, the entertainment of six Vaccinators instead of the twenty applied for in your letter of the 7th, and allowed in the orders of the 18th idem.

2. His Honor has likewise been pleased to sanction, in the same manner, (as an experimental measure,) the disbursement during the next three months, by Dr. Stewart, of a sum equivalent to the salary that would have been drawn by the other fourteen Vaccinators at rupees 8 each per mensem, being an aggregate of rupees 112 per mensem ; or of such portion of it as it may be found advisable to bestow in rewards to Native parents, who will bring their children to the Dispensary at the periods indicated by Dr. Stewart, and thus enable him to obtain fresh and good lymph for general dissemination.

I have, &c.,

(Signed) J. W. DALRYMPLE,
Under Secy. to the Govt. of Bengal.

Form of "Note and Ticket"—used at the Calcutta Vaccine Depôts.

FORM of "Note and Ticket"—used at the
CALCUTTA VACCINE DEPOTS.

1. In order to avoid the danger of that awful complaint, the Small-pox, the child that is Vaccinated ought for six days to take no other food than sago and milk. It may be bathed on the third day, and on the eighth a gentle purgative, such as Castor Oil, should be administered.
2. It is *essential* that the spot where the Vaccination has been applied, should not be scratched ; for if the pock bursts or is torn open,

before it is fully matured, it will be injured and its efficacy, in a great measure, destroyed. On the eighth day after Vaccination the child should be taken to the Medical attendant.

Form of "Note and Ticket"—used at the Calcutta Vaccine Depôts.

3. There are three places in Calcutta where Vaccination is every day administered gratuitously, viz. 1, the Goranhatta Dispensary ; 2, the Park Street Dispensary ; and 3, the Medical College.

4. On the eighth day, the vaccinated child should be taken to the Dispensary ; and if the Medical attendant is satisfied with the appearance of the pock, and sees no marks of scratching, he will pay 2 annas for every child to the party that may bring it.

(Signed) D. STEWART.

TRANSLATION on the converse page.

বসন্ত রোগনিবারক টিকা।

১। ভয়ানক বসন্ত রোগের শঙ্কা হইতে নিশ্চয় রক্ষা পাইবার জন্যে ইহা আবশ্যক যে টিকা দেওয়া সম্ভান ছয় দিবস কেবল সাপ্তদানা ও দুগ্ধ আহাৰ করিয়া থাকিবেক ; তৃতীয় দিবসে সে স্নান করিতে পারে, এবং অষ্টম দিবসে অল্প ভেদক একপান ভেরান্দার তৈল লইলে ভাল হয়।

২। টিকা দেওয়া স্থান চুলকাইতে না দেওয়া নিতান্ত আবশ্যক, কেননা তাহা সম্পূর্ণ রূপে পক্ক হওনের পূর্বে যদি ফাটিয়া যায় কিম্বা ছিড়িয়া যায় তবে তাহা নষ্ট হয় এবং তাহার উত্তম ফলও হারায় ; টিকা দিয়া সম্ভানকে অষ্টম দিবসে চিকিৎসকের নিকট আনিয়া দেখাইবে।

৩। কলিকাতার তিন স্থানে বসন্ত রোগনিবারক টিকা প্রত্যহ অমনি দেওয়া যায়। অর্থাৎ, ১ গরানহাটা চিকিৎসালয়ে, ২ কলিঙ্গা চিকিৎসালয়ে, ৩ মেডিকেল কলেজ।

৪। যে কোন ব্যক্তি তাহার সম্ভানকে টিকা দিয়া অষ্টম দিবসে চিকিৎসালয়ে লইয়া যাইবে, চিকিৎসক মহাশয় তাহার সম্ভানের বসন্ত নিরীক্ষণ করিয়া যদি কোন স্থানে চুলকানের

Form of "Note and
Ticket"—used at the
Calcutta Vaccine
Depôts.

কিন্মা আচড়ানের ক্ষত না দেখেন, তবে মন্তুষ্ট হইয়া প্রত্যেক
বালকের নিমিত্তে ৯০ দিবেন।

CALCUTTA VACCINE DEPOT.			
At	*	*	*
বসন্ত রোগনিবারক টিকা।			
Name or No.	*	*	*
Vaccinated on the	*	*	*
Inspected on the	*	*	*
by			
Result.			