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# Classified List of the Officers of the Senior Department

No. sanctioned.	No. existing in	Names of Officers and Branch to originally posted.	o which	Substantive Appointm	ent.	Survey Party or Office to which at present attached.
1	"	LtCol. J. Sconce, S. C., P. H. Major R. V. Riddell, B. E., P. H. Mr. J. O. N. James		Survr. Genl. of India Depy. Survr. Genl. Asst. Surveyor General Ditto		
4	1 2 3 4	SENIOR BRANCH.  DEPUTY SUPERINTENDENT  1st Grade.  Mr. J. B. N. Hennessey, M. A., F. R. S.  Col. F. C. Anderson, S. C., P.  Bt. Col. G. C. De Prée, S. C., P. H.  Maj. H. R. Thuillier, R.E., P.H.	[G.T.S.] [Rev.] [Topogl.] [G. T. S.]	Depy. Supdt., 1st grade Ditto Ditto Ditto		In charge Head Quarters Offices, Dehra  Dun In charge Mirzapur District [Cadastral] Survey, N. W. P.—Naini Tal On furlough In charge Mysore Topographical Survey, Bangalore
9—8	12945 6 7 89	Maj. J. Herschel, R. E., F. R. S., F. H.  Mr. R. B. Smart (Senio)  Lt. Col. B. R. Branfill, B. C., P. H.  Major G. Strahan, R. E., P. H.  Maj. T. T. Carter, R. E., P. H.  Lt. Col. D. Macdonald, S. C., P. H.  Major F. Coddington, S. C., P. H.  Bt. Lt. Col. W. M. Campbell, R. E.,	[G. T. S.] [G.T.S.] [Rev.] [G. T. S.] [Topogl.] [G. T. S.] [Rev.] 	Depy. Supdt., 2nd grade Ditto	:::	In charge Guzerat Survey, Poona On duty, Europe
12—10	7 2 3 4 5 6 7 8 9 10 11 12	Major C. Strahan, B. E.  Mr. J. O. N. James Major W. Barron, S. C., P. H.  LtCol. H. C. B. Tanner, Bombay, S. C.,  Mr. E. T. S. Johnson  Maj. W. J. Henviside, B. E., P. H.  " A. Pullan, S. C., P. H.  " D. C. Andrew, S. C., P. H.  " W. H. Wilkins, S. C., P. H.  " J. E. Sandeman, S. C., P. H.	[Topogl.] [Topogl.] [Topogl.] [Rev.] [Rev.] [Rev.] [G.T.S.] [G. T. S.] [Rev.] [Rev.] [Rev.]	Deputy Supdt., 3rd grade Ditto		Head Quarters, Calcutta

# of the Survey of India as it stood on the 1st January 1882.

No. existing in	Congress Co	onsolidated	Sa	lary.		Extra allow	ances, if any.	ł		Remarks.
1 1 1 2 3	2	Rs. 3,000 2,200 1,482 1,300 1,000	0 0 10	0 0 0	(a) (a)					Superintendent, Mathematical Instrument Department, and in charge Lithographic Branch, Head Quarters, Calcutta. In charge Engraving and Cartographic Branches, Head Quarters, Calcutta. In charge Photographic Branch, Head Quarters, Calcutta.
	1 2 3 4	1,600 1,627  1,600	14	. 0	(a)	) Inclusive of person:	al allowance.			For 1 year, from 9th December 1881.
	1 2 3 4 5	1,600  1,300 1,482	 ) ( 2 10	0 0	(e)	) Half scale local	 ,			Officiating Deputy Superintendent, 1st grade. For 2 years, from 10th January 1880.
	6 7 8 9	1,482 1,300 1,300	)	0 0		b) Half scale local.				For 6 months, from 10th November 1881.
	1 2 3	1,48 1,48 1,30	2 1 0	0 (		<ul> <li>a) Special local</li> <li>α) Special local</li> </ul>			•••	Offg. Deputy Superintendent, 2nd grade. Assistant Surveyor General.  Ditto ditto. Assistant Surveyor General.
	4 5 6 7 8	1,00 1,00 1,00 1,18	0 0 12 1	0 (		(b) Half scale local.				
	9 10 11 12	1,00 1,00	)0 )0 	0 0	0 (	(b) Half scale local. (b) Ditto. do. (c) Burma. (c) Assam.				For 1 year and 25 days, from 9th August 1881.

<sup>(</sup>a) Department of Agriculture, Revenue, and Communerce Memorandum No. 731, dated 31st October 1873.
(b) Financial Resolution No. 704, dated 22nd February 1866.
(c) Department of Home, Revenue and Agriculture, No. 171, dated 6th May 1880.
(d) Department of Agriculture, Revenue, and Commerce, No. 213, dated 14th May 1878.
(e) Financial Resolution No. 3292, dated 31st October 1868.

				<i>U</i> • • • • • • • • • • • • • • • • • • •
No. sanctioned.	No. existing in	Names of Officers and Branch to which originally posted.	Substantive Appointment.	Survey Party or Office to which at present attached.
		SENIOR BRANCH-concld.		
		ASSISTANT SUPERINTENDENTS.		
11		1st Grade.		
	1	Bt. Maj. T. H. Holdich, R. E., L. s [Topogl.]	Asst. Supdt., 1st grade	In charge Kohat Frontier Topogl. Survey
11.	3	Mr. J. Campbell [Rev.]	Ditto	On furlough
4 James of which	4	Major J. Waterhouse, S. C., P. H [Topogl.] ,, M. W. Rogers, R. E., L. S [G. T. S.]	Ditto Ditto	Head Quarters, Calcutta In charge Eastern Frontier Series, Ban-
Ą	5	Capt. J. Hill, R. B [G. T. S.]	Ditto	In charge Tidal and Levelling Operations
<i>``^</i>	6	Major H. Lees Smith, s. c., M. A., L. L. B., P. H. [Rev.]	Ditto	Poona Charge Konker Com
,	7	Mr. H. Horst [Topogl.]	Ditto	In charge Konkan [Topogl.] Survey
ž	8	" W. H. Cole, M. A., H. S [G. T. S.]		On special leave with subsistence allowance
S	9	", H. B. Talbot, L. s [Rev.]	Ditto Ditto	Head Quarters Offices, Dehra Dun In charge Tharawaddy Dist. [Cadastral]
, 6	10	Major A. W. Baird, B. E., P. H [G. T. S.]	Ditto	On furlough
7	11	Major J. R. McCullagh, B. E., L. S [G. T. S.]	Ditto	In charge Hanthawaddy Dist. [Cadastral] Survey, British Burma, Raugoon
11		2nd Grade.		
۸.	1	Major J. R. Wilmer, s. c., H. s [Topogl.]	Asst. Supdt., 2nd grade	In charge Bloom on 1 M 1 m
June Coe holes	2	Mr. J. McGill [G. T. S.]	Ditta	In charge Bhopal and Malwa Topogl. Survey, Mussoorie
Tu)	3 4	Major S. H. Cowan, s. c., P. H [Rev.]	Ditto	On special duty, Head Quarters, Calcutta
N.	5	,, E. H. Steel, s. c., H. s [Rev.] H. S. Hutchinson, s. c., P. H. [Rev.]	Ditto Ditto	On furlough (m. c.) Ditto (m. c.)
ila,	6	Mr. E. C. Barrett, H. S. [Rev.]	Ditto	Ditto
, p	7 8	Major R. Beavan, S. C., P. H [Rev.] Bt. LtCol. R. G. Woodthorpe, R. E., L. S.	Ditto	In charge Beluchistan Topogl. Survey
6		[Topogl.]	Ditto	In charge Khasi and Garo Hills Topogl.
Ŷ	9	" E. P. Leach, v. c., B. B., L. s.		Survey, Shillong 1000gl.
ž		[Topogl ]	Ditto	In charge Hooghly River Survey, Bengal
7	10 11	Mr. G. H. Cooke, L. s [Rev.]	171000	On furlough
		" E. J. Jackson, L. s [Rev.]	Ditto	Hanthawaddy District [Cadastral] Survey, British Burma—Rangoou
9—6		3nd Grade.		
	1	Mr. W. G. Beverley [G. T. S.]	Asst. Supdt., 3rd grade	Tidal and Levelling Operations, India and
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	2	Capt. H. J. Harman, B. E., L. S [G. T. S.]		Burma, Poona In charge Special Survey Operations in and
12	3	Capt. G. W. Martin, s. c., H. s [Rev.]		around Darjeeling On deputation
6.2	4	,, A. J. C. Scott, s. c., н. s. [Rev.]		On furlough (m. c.)
Mangan	5 6	Capt. St. G. C. Gore, B. E [G. T. S.] Mr. E. C. Ryall [G. T. S.]	Ditto Ditto	Ditto Darjeeling Survey Party
3	7 8	Capt. J. R. Hobday, s. c., n. s. [Topogl.] Lieut. the Hon'ble M. G. Talbot, n. e., n. s.	Ditto	Guzerat Survey, Poona
10	9	[Topogl.]		Bombay Party, Mussoorie
ļ	9	" F. B. Longe, B. E [Topogl.]	Ditto	Mysore Topogl. Survey—Bangalore

Survey of India as it stood on the 1st January 1882,-concluded.

No. existing in each grade.	Consolidated Salary.	Extra allowances if any.	Remarks.
	Rs. A. P.		
1 2 3	1,140 0 0 1,000 0 0 1,182 10 0	(2) D	Officiating Deputy Superintendent, 3rd grade. For 2 years, from 1st February 1881. Officiating Deputy Superintendent, 3rd grade, Assistant Surveyor General. Officiating Deputy Superintendent, 3rd grade.
5	1,140 0 0		Ditto ditto.
6 7	750 0 0	(c) Half scale local, and (a) charge	Assistant Superintendent, 1st grade. On furlough for 2 years, from 5th June 1879; extension for 3 months.
8	750 0 0 750 0 0	(a), Charge and (b) Burma	
10	932 10 0	(a) Charge and (b) Burma	For 1 year and 148 days, from 15th October 1881.
11	J02 10 0	(6) 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
1 2 3 4 5 6 7	750 0 0 750 0 0 750 0 0 	(a) Charge (d) Presidency Ditto (a) Charge	Officiating Assistant Superintendent, 1st grade.  Ditto ditto. Ditto ditto. For 1 year, from 8th December 1881. For 2 years, from 22th August 1881. For 2 years, from 22nd July 1880. Officiating Assistant Superintendent, 1st grade.
8	890 0 0	Ditto	Ditto ditto.
9 10	890 0 0		Ditto ditto. For 1 year, from 22nd May 1880; extension for 1 year.
11	600	(b) Burma	
1	750 0 0	(c) Half scale local	Officiating Assistant Superintendent, 1st grade.
2 3 4	740 0 0 	(a) Charge and (c) full scale local	Ditto ditto 2nd grade. Officiating Deputy Assay Master, Bombay Mint. For 2 years, from 21st April 1879; extension for 6 months; further extension for 6 months.
5 6	600 0 0	(c) Full scale local	For 2 years, from 11th December 1880. Officiating Assistant Superintendent, 2nd grade.
7	600 O O	(c) Half scale local	Ditto ditto.
8	570 0 0 570 0 0		Temporarily attached. Ditto.

<sup>(</sup>a).—Department of Agriculture, Revenue and Commerce Memorandum No. 731, dated 31st October 1873.
(b).—Home, Revenue and Agricultural Department, No. 171, dated 6th May 1880.
(c).—Financial Resolution No. 704, dated 22nd February 1866.
(d).—Department of Agriculture, Revenue and Commerce Memorandum No. 213, dated 14th May 1878.

# Classified List of the Officers of the Junior or Subordinate

No. sanctioned.	No. existing in each grade.	Names of Officers and Branch to which originally posted.	Substantive Appointment.	Survey Party or Office to which at present attached.
8	1 2 3 4 5 6 7 8	" J. F. Baness [Tope " A. Chamarett [Tope " J. Peyton [G. T " A. D'Souzo [G. T " F. W. Kelly, H. 8 [R	Ditto	Correspondence Office On duty at Head Quarters, Calcutta Detached under Settlement Officer, Cachar District, Assam Chief Draftsman, Head Quarters, Calcutta Geographical Examiner, Head Quarters, Calcutta On duty, Head Quarters Office, Calcutta Guzerat Survey On duty, Office of Deputy Surveyor General, Calcutta Mirzapur District [Cadastral] Survey, N. W. P.
11—10	 1 2 3 4 5 6 7 8 9 10 11	" L. H. Clarke [G. T [G. T [G. T.	Ditto     Ditto     S.   Ditto     Ditto     S.   Ditto     Ditt	Rajputana Topogl. Survey In charge Bombay Party, Mussoorie On half pay Hanthawaddy District [Cadastral] Survey, British Burma On duty at Head Quarters, Dehra Dun Ditto ditto, Calcutta Draftsman, Office of Deputy Surveyor General, Calcutta Computing Office, Head Quarters, Dehra Dun On duty at Head Quarters, Dehra Dun In charge Sylhet Test Survey On duty at Head Quarters, Calcutta Orawing Office, Head Quarters, Dehra Dun
14	1 2 3 4 4 5 6 7 7 8 9 10 11 12 13 14		Ditto	On duty at Head Quarters, Calcutta On half-pay Meerut, &c., Dists. Survey, N. W. P. South Decean Survey More at Head Quarters, Calcutta Hooghly River Survey, Bengal Bassein District [Cadastral] Survey, British Burna Ghazipur District [Cadastral] Survey, N. W. P. British Burna Ghazipur District [Cadastral] Survey, Punjab. Temporarily detached under Settlement Officer, Punjab Konkan Topogt, Survey, Bombay Debra Ismail Khan, &c., Districts Survey, Punjab Modut, Office of Deputy Survey General, Calcutta Mizzapur Dist. [Cadastral] Survey N. W. P. Debra Ismail Khan, &., Districts Survey, Punjab N. W. P.  Debra Ismail Khan, &., Districts Survey, Punjab N. W. P.  Debra Ismail Khan, &., Districts Survey, Punjab More at Survey N. W. P.  Debra Ismail Khan, &., Districts Survey, Punjab More at More a

## Department of the Survey of India as it stood on the 1st January 1882.

each grade.	Consolidated	S	alar	y	Extra allowances, if any.	REMARKS.
	Rs.	A	. Р			
1 2	650 500			(a (l	e) Inclusive of personal allowance ) Presidency house rent.	Personal Assistant to the Surveyor General of India.
3	600	0	0		•	
4 5 6	500 500 500	0	0	-   '	o) Presidency house rent. Ditto ditto. o) Half scale local.	
7	550 500			- 1	e) Inclusive of personal.	
1 2 3	400 400 200	C		'	z) Chargo.	On half-pay list, from 3rd November 1879.
4 5 6	400 400 400	C	) (	) [	() Burma () Presidency house rent.	Doing duty as Solar Photographer.
7 8 9 10	400 400 400 400 400 400		) ( ) ( ) (		b) Ditto ditto.  7) Charge and (e) Assam.  b) Presidency house rent.	
1 2 3 4 5	350 175 350 350 350 350	0	) ( ) ( ) (		b) Presidency house rent b) Half scale local. b) Presidency house rent.	On half-pay list, from 1st January 1880.
7	350	C	) (	(6	d) Burma.	•
8	350	C	) (	)		
9	450 350	Ĺ	) (	(/	f) Includes personal. b) Hulf scale local.	·
1 2	350 350				3) Prosidency house rept	
3	350			-   `	b) Presidency house rent.	
4	350			ŀ		

<sup>(</sup>a) Revenue, Agriculture, and Commerce Department, No. 85, dated 10th February 1879.
(b) Financial Resolution No. 704, dated 22nd February 1866.
(c) Home, Revenue and Agricultural Department, No. 390, dated 5th September 1879.
(d) Home, Revenue and Agricultural Department, No. 171, dated 6th May 1880.
(e) Financial Resolution No. 3212, dated 31st October 1868.
(f) Revenue and Agricultural Department, No. 77, dated 23rd August 1881.

of th	ie Survey of Indi	a as it stood on the 1st January 1882,—continue	ed.
grade.	Consolidated Salary.	Extra allowances, if any.	

No. sanctioned.	No. existing in each grade.	Names of Officers and B originally post	ranch to which	Substantive Appointm	ent.	Survey Party or Office to which at present attached.
		JUNIOR BRANC	CH-contd.			
	}	SURVEYORS—	concld.			
2018		4TH GRADE	<u>.</u>			
		Salary Rs.				
	1	Mr. W. R. Vyall		Rev.] Surveyor, 4th grade		Tharawaddy District [Cadastral] Survey,
	2	" M. J. Ogle	[To]	ogl.] Ditto		Khasi and Garo Hills Topogl. Survey
	з	"A. G. Wyatt	[To]	ogl.] Ditto	···	Khandesh and Bombay Native States
	4	" H. Peychers	[G. '	P. S.] Ditto		Computing Office, Head Quarters, Dehra
	5	" G. Belcham, н. в.	[G. 7	. S.] Ditto	•••	Tidal and Levelling Operations, India and
	6	"H. Dowman	(1	Rev.] Ditto	•	Hanthawaddy District [Cadastral] Survey, British Burma; detached on Weste
	7	"E. G. Little	[3	Rev.] Ditto	•••	Land Survey in Akyab Mirzapur District [Cadastral] Survey
	8	" H. T. Hanby, L. s.	[1	Rev.] Ditto		Ghazipur District [Cadastral] Survey.
	9	" L. J. Pocock, н. s.	[G. 7	. S.] Ditto		N. W. P Eastern Frontier Series
	10	" A. Christie, н. s.	[G. 7	. S.] Ditto		Guzerat Survey
	11	" W. J. O'Sullivan	[G. 1	. S.] Ditto		Hooghly River Survey, Bengal
	12	" N. C. Gwynne	[G. 1	. S.] Ditto		Kattywar and Cutch Survey
i	13	" W. C. Price	[G. 1	. S.] Ditto	•••	Ghazipur District [Cadastral] Survey,
	14	" C. H. McA'Fee, L. s.	[G. T	. S.] Ditto	•••	N. W. P
	15	"C. F. Hamer	[Тор	pgl.] Ditto		Bhopal and Malwa Topogl. Survey
	16	"J. H. O'Donel	[1	ev.] Ditto		Bassein District [Cadastral] Survey, British
l	17	" A. W. Chennell	[Тор	ogl.] Ditto		Khasi and Garo Hills, Topogl. Survey
	18	" T. E. M. Claudius	[Тор	ogl.] Ditto	•••	Kohat Frontier Topogl. Survey
	19	" A. J. James	[Тор	pgl.] Ditto	•••	Mysore Topogl. Survey
	20	" T. H. Rendell	[G. T	S.] Ditto	•••	Tidal and Levelling Operations, India and Burma
		ASSISTANT SURV	EYORS.			
41	•••	1st Grade.				
		Salary Rs. 200, rising	to Rs. 250.			
ļ	1	Mr. R. Todd	(Торс	gl.] Asst. Surveyor, 1st grade	a	Dehra Ismail Khan, &c., Districts Survey, Punjab
	2	" D. A. King	[R	ev.] Ditto		Hanthawaddy District [Cadastral] Survey, British Burma
	3	" R. B. Smart, Jr., L. s.	[R	ev.] Ditto		Bassein District [Cadastral] Survey, British Burma
)	4	" F. Kitchen	[Торс	gl ] Ditto		Mysore Topogl. Survey
	5	" W. Stotesbury, n.s.—L. s., C	Canarese [Tope	gl.] Ditto		Ditto ditto
	6	" Hugh Todd	[G. T.	S.] Ditto		Ditto ditto
1	7	" E. J. Connor, L. s.	[G. T.	S.] Ditto		Tidal and Levelling Operations, India and Burma

v, ·		<del></del>	
No. existing in each grade.	Consolidated Salary.	Extra allowances, if any.	Remarks.
	Rs. A. P.		
		[	
		ļ	
1	300 0 0	(a) Burma allowance.	
*	,		
2	300 0 0	(b) Assam.	
3	300 0 0	(c) Half scale local.	
4	300 0 0		
5	300 0 0	(c) Half scale local.	
6	300 0 0	(a) Burma.	
7	300 0 0		
8	300 0 0		
9.	300 0 0		
10	300 0 0	(c) Half scale local.	
11	300 0 0	( ) TV 10 - 1-11	
12	300 0 0	(c) Half scale local.	
13 14	300 0 0	(c) Half scale local.	
15	300 0 0	(c) Hall Scale local.	
"	300 0 0	•	
16 17	300 0 0 300 0 0	(a) Burma. (b) Assam.	
18	300 0 0		
19	300 0 0		
20		CONTRACTOR ACCURATION AND ACCURATION	
20	300 0 0	(d) Deputation and (c) Half scale local.	
	İ	,	
1			
		}	
1	250 0 0		
2	250 0 0	(a) Burma.	
-	200 0 0	(to) During.	
3	250 0 0	(a) Ditto.	
4	250 0 0		
6	250 0 0	}	
6	250 0 0		
7	250 0 0	(c) Half scale local.	
			<u> </u>

<sup>(</sup>a) Home, Revenue, and Agricultural Department, No. 171, dated 6th May 1880.
(b) Financial Resolution No. 3292, dated 31st October 1868.
(c) Financial Resolution No. 704, dated 22nd February 1866.
(d) Home, Revenue and Agricultural Department, No. 482, dated 20th October 1879.

No. sanctioned.	No. existing in each grade.	Names of Officers and Br		Substantive Appointment	Survey Party or Office to which at present attached.
		JUNIOR BRANC		·	
		1st Ghade—con Salary Rs. 200, rising to			
		Mr. J. Connor	[Rev.]	Asst. Surveyor, 1st grade	Draftsman, Office of Deputy Surveyor
	8	" T. H. Dunne, L. s.	[Rev.]	Ditta	Baccain Diet [Codest-12 6
		"W J. Lane	[Rev.]	Ditto	Droftsman Office of David C
	9	" J. Bond	[G. T. S.]	Ti'u.	No. 2 Astronomical Party
	10	" C. D. Potter, L. s	[G. T. S.]	T):440	Eastern Frontier Series
	11	"C. Tapsell …	[Topogl.]	Ditte	Guzerat Survey
	12	" T. Kinney, L. 8	[G. T. S.]	Ditto .	On half-pay
	13	,, J. Newland, L. s	[Rev.]	Ditto	Konkan Topogl. Survey
	14	" J. A. Barker	[Topogl.]	Ditto	Khandesh and Bombay Native States
	15	" E. A. Wainright	[Topogl.]	Ditto	Topogl. Survey Bhopal and Malwa Topogl. Survey
	16	" R. C. D. Ewing, н. s.	[Rev.]	Ditto	Meerut, &c., Dists. Survey, N. W. P
	17	" W. J. Cornelius, L. S.	[Topogl.]	Ditto .	Gwalior and Central India Topogl. Survey.
	18	" W. W. McNair, L. s.	[Topogl.]	Ditto .	Kohat Frontier Topogl. Survey
	19	"J. T. U. Coxen	[Rev.]	Ditto .	Beluchistan Topogl. Survey
	20	" G. W. Jarbo, L. s	[Rev.]	Ditto	Tharrawaddy District [Cadastral] Survey, British Burma
	21	" P. J. W. Doran, L. S.	[Topogl.]	Ditto	Gwalior and Central India Topogl. Survey.
	22	" J. R. Scott, L. s	[Rev.]	Ditto .	Tharawaddy District [Cadastral] Survey, British Burma
	23	" J. McHatton, L. s.	[Rev.]	Ditto .	Hanthawaddy Dist. [Cadastral] Survey, British Burma
	24	" H. T. Kitchen	[Topogl.]	Ditto .	Bhopal and Malwa Topogl. Survey
	25	" J. H. Wilson, L. s.	[Topogl.]	Ditto .	Rajputana Topogl. Survey
	26	" J. Hickie, L. B	[G. T. S.]	Ditto .	South Deccan Topogl. Survey
	27	" W. Fielding, L. s	[G. T. S.]	Ditto .	Kattywar and Cutch Survey
	28	"S. O. Madras	[Rev.]	Ditto .	Ghazipur Dist. [Cadastral] Survey, N. W. P.
	29	" G. D. Cusson, L. S.	[G. T. S.]	Ditto	Guzerat Survey
	30	" T. F. Freeman, L. S.	[Rev.]	Ditto .	On sich lenve
	31	"G. C. Swiney	[Rev.]	Ditto .	South Deccan Topogl. Survey
	32	"W. H. Lilley	[Topogl.]		Bhopal and Malwa Topogl. Survey
	33	"J. S. Swiney	[Rev.]		Hooghly River Survey
	34	" C. P. Torrens	[G. T. S.]		Dariceling Survey
	35	" W. Robert	[Topogl.]		Minzanus Diet [Cadastral] Survey N. W. P
	36	" T. Shaw, L. 8	[Rev.]		Magnet &c Dista Survey N. W. P.
	37	" C. W. Wilson, L. S.	[Rev.]		Mirzonan Diet [Cadastral] Survey, N. W. P
	38	" W. D. Corbett	[Rev.]		Khandesh and Bombay Native States
	39	" F. E. Warde	[Topogl.]		Topogl. Survey Cadastrall Survey
	40	" E. J. Martin	[Rev.]	Ditto .	British Burma
	41	" C. W. F. Seyers	[Rev.]	Ditto	Meerut, &c., Dists. Survey, N. W. P
	l	1			

of the Survey of India as it stood on the 1st January 1882,—continued.

ench grade	Consolidated Salary.			Extra allowances, if any.	Rемавка.	
	Rs. A	. 1	P.			
	325	0	0			
,			0	(a) Burma allowance.		
.	300		0			
1			0			
1	250 250		0	(b) Half scale local.		
			0	(b) Itali dono locali	On half-pay list, from 7th December 1879.	
3	250			(b) Half scale local.		
į		0	0	(b) Ditto ditto.		
3	250	0	0			
,	250	0	0			
3	250	0	0			
•	250	0	0	(c) Afghanistan.		
		0	0	(a) Burma.		
3	250	0	0	(a) Burma.		
3	250		0	(a) Ditto.		
1 5	250 250		0		}	
6	250	0	0	(b) Half scale local.		
,	250		0	(b) Ditto ditto.		
9	250					
9	250	0	0	(b) Half scale local.		
0						
۱	250	0	0	(b) Half scale local.		
3	240	0	0			
3	240					
4	230					
5   6	230		0	(b) Full scale local.	j	
7	230 220					
8	220		0			
l						
9	i		0	(b) Half scale local.		
0	220	0	0	(a) Burma.		

 <sup>(</sup>a) — Home, Revenue, and Agricultural Department, No. 171, dated 6th May 1880.
 (b) — Financial Resolution No. 704, dated 22nd February 1866.
 (c) — Home, Revenue and Agricultural Department, No. 429, dated 19th September 1879.

No. sanctioned.	No. existing in each grade.	Names of Officers and Brane originally posted.	h to which	Substantive Appointment.	Survey Party or Office to which at present attached.
		JUNIOR BRANCH-	-contd.		
		ASSISTANT SURVE	YORS.		
23—22		2nd Grade.			
		Salary Rs. 160, rising to	Rs. 200.		
	1	Mr. A. Cooper	[Topogl.]	Asst. Surveyor, 2nd grade	On half-pay
	2	" W. H. Penrose	[Rev.]	Ditto	Bassein Dist. [Cadastral] Survey, British
	3	" C. T. Templeton	[Topogl.]	Ditto	Burma Gwalior and Central India Topogl. Survey.
	4	" J. McCay	[Topogl.]	Ditto	Khasi and Garo Hills Topogl. Survey
	5	"G. E. Parker …	[Rev.]	Ditto	Hanthawaddy Dist. [Cadastral] Survey, British Burma
	6	" G. Campbell	[Rev.]	Ditto	On Furlough "
	7	" W. C. G. Barckley	[Topogl.]	Ditto	Darjeeling Party "
	8	" G. T. Hall, L. s.	[G. T. S.]	Ditto	Kattywar and Cutch Survey
	9	" G. Vander Beck, L. s.	[Topogl.]	Ditto	Khandesh and Bombay Native States   Topogl. Survey
	10	"J. Murphy	[Rev.]	Ditto	Hanthawaddy Dist. [Cadastral] Survey, British Burma
	11	" C. W. J. Ford	[Rev.]	Ditto	Bassein Dist. [Cadastral] Survey, British Burma
	12	" A. W. Smart	[Rev.]	Ditto	Tharawaddy District [Cadastral] Survey, British Burma
	13	,, W. M. Kelly	[Rev.]	Ditto	Konkan Topogl. Survey, Bombay
	14	" A. Kitchen	[Topogl.]	Ditto	Gwalior and Central India Topogl. Survey
	15	" P. White, L. s	[Topogl.]	Ditto	On sick leave
	16	,, B. M. Wilson	[Rev.]	Ditto	Hanthawaddy Dist. [Cadastral] Survey, British Burma Mirzapur District [Cadastral] Survey,
	17	" E. P. S. Hill, H. s.	[Rev.]	Ditto	Mirzapur District [Cadastral] Survey, N. W. P
		" R. A. Gibson  R. R. Dickinson, L. s.	[Topogl.]	Ditto	Konkan Topogl. Survey, Bombay
	18	,, J. F. Macarthy, L. 8.	[Rev.]	Ditto	Leave on private affairs
	20	" E. Graham, L. 8	[Topogl.]	Ditto	Khandesh and Bombay Native States
	21	" H. Corkery, L. s	[G. T. S.]	D'II.	Topogl. Survey Beluchistan Topogl. Survey
	22	" G. L. Fleming	[Topogl.]	Ditto	Rajputana Topogl. Survey
	23	" G. R. Copping	[Topogl.]	Ditto	Bhopal and Malwa Topogl, Survey
22		3nd Grade.			
		Salary Rs. 120, rising to	Rs. 160.		
	1	Mr. A. Bryson, H. 8	[G. T. S.]	Asst. Surveyor, 3rd grade	On half-pay "
	2	"G. A. Knight	[Topogl.]	Ditto	South Deccan Topogl. Survey, Bombay
	3	" D. J. Collins	[G. T. S.]	Ditto	Tharawaddy District [Cadastral] Survey British Burma
	4	" P. A. Peters	[Rev.]	Ditto	Detached under Settlement Officer, Canar
	5	" P. F. Prunty	[G. T. S.]	Ditto	Kattywar and Cutch Survey
	6	" J. Keating …	[G. T. S.]	Ditto	Khasi and Garo Hills Topogl. Survey
	7	" C. S. Kraal, L. s.	[Rev.]		Hooghly River Survey, Bengal
	8		[G. T. S.]		Guzerat Survey
	9	" E. B. M. Drew	[Rev.]	Ditto	Ghazipur District [Cadastral] Survi
<del></del>	9	" E. B. M. Drew	[Rev.]	Ditto	Glinzipur District [Cadastr

	5	<del></del>		
	No. existing i	Consolidated Salary.	Extra allowances, if any.	R.Емавка.
	lo. ex			
	<u>~</u>			
		Rs. A. P.		
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			_	
ĺ				
•		100 0 0		On half-pay list, from 6th October 1879.
	1	100 0 0		On half-pay tist, from 6th October 1019.
*.	2 3	200 0 0 200 0 0	(a) Burma allowance.	
	4	200 0 0	(b) Assam.	
	5	200 0 0	(a) Burma.	
	6	200 0 0		
	7	200 0 0	(c) Full scale local.	
	8	200 0 0	(c) Half scale local.	•
	9	192 0 0	(c) Ditto ditto.	
	10	192 0 0	(a) Burma.	
ĺ	11	184 0 0	(a) Ditto.	
ĺ	12 13	192 0 0 192 0 0	(a) Ditto. (c) Half scale local.	
	14	184 0 0		
	15	•••••		
	16	184 0 0	(a) Burma.	
	17	184 0 0 220 0 0		
	18	176 0 0	(c) Half scale local.	
	19	•••••		
	20		(A) Helf cools local	
	21	176 0 0 176 0 0	(c) Half scale local. (d) Afghanistan.	
	22	168 0 0		
	23	160 0 0		
İ				
].				
	1	80 0 0		On half-pay list, from 1st May 1880.
	2	160 0 0	(c) Half scale local.	
	3	160 0 0	(a) Burma.	
	5	,,,,,,		
	6	160 0 0 160 0 0	(c) Half scale local. (b) Assam.	
	7	160 0 0	(v) moonin	
1	8		(c) Half scale local.	
	9	160 0 0		Rejoined from half-pay list on 1st April 1981.
[				<del></del>
		(A) Rissocial Description	Agricultural Department, No. 171, dated 6th May 188 No. 3292, dated 31st October 1868.	u,

13

<sup>(</sup>b) Financial Resolution, No. 3292, dated 31st October 1868.
(c) Financial Resolution, No. 704, dated 22nd February 1866.
(d) Home, Rovenue, and Agricultural Department, No. 429, dated 19th September 1879.

## Classified List of Officers of the Junior or Subordinate Department

No. sanctioned.	No. existing in each grade.	Names of Officers and Branch to which originally posted.				intive App	ointment.	Survey Party or Office to which at present attached.
		ASSISTANT SU	DE—concld.	concld.				·
	10	Mr. C. Norman, L. s		[G. T. S.]	Asst. S	urveyor, 31	rd grade	Guzerat Survey
	11	" D. Campbell .		[Topogl.]		Ditto		Khasi and Garo Hills Topogl. Survey
	12	" R. F. Warwick,	L. S. ,	[G. T. S.]	}	Ditto		On sick leave
	13	" L. F. Berkeley, L.	. 9	[Rev.]		Ditto		Ghazipur District [Cadastral] Survey, N. W. P
	14	" J. M. Kennedy .		[G. T. S.]		Ditto		Mysore Topographical Survey
	15	" G. P. Tate, L. s		[Topogl.]		Ditto		Gwalior and Central India Topogl. Survey
	16	" P. C. H. Smart		[Rev.]		Ditto	•••	Hooghly River Survey
	17	" C. George .	··· ···	[Topogl.]		Ditto		Khandesh and Bombay Native States Topographical Survey
	18	", J. C. Kelly, L. s		[Rev.]	j	Ditto		Dehra Ismail Khan, &c., Districts Survey, Punjab
	19	"A. George .		[G. T. S.]		Ditto		Guzerat Survey
	20	" R. W. Senior, L. s		[G. T. S.]		Ditto		Bombay Party, Mussoorie
	21	" W. H. D. Ewing	•••	[Rev.]		Ditto	•••	Bassein District [Cadastral] Survey, British Burma
	22	" J. A. Higgs .		[Topogl.]	Proby.	ditto	<b></b> }	Mysore Topographical Survey
	23	"O. D. Smart .	··· ···	[Rev.]	Ditto	ditto	•••	Mirzapur District [Cadastral] Survey, N. W. P
	24	"A. Ewing .		[Topogl.]	Ditto	ditto		Khasi and Garo Hills Topogl. Survey
		1						

of the Survey of India as it stood on the 1st January 1882,—concluded.

	No. existing in each grade.	Consolidated Sal	lary	7.	Extra allowances, if any.	REMARES.
		Rs. A	. I	?.		
	10	160	0	0	(a) Half scale local allowance.	
,	11	160	0	0	(b) Assam.	
	12	******			<b></b>	For 4 months and 25 days, from 30th August 1881.
	13	160	0	0		
.	14	160				
	15	144	0	0		
	16	144	0	0		
)	17	144	0	0	(a) Half scale local.	
,	18	144	0	0		
	19	144	0	0	(a) Half scale local.	
	20	144	0	0		
	21	144	0	0	(c) Burma.	
	22	120	0	0		
	23	80	0	0		ļ
	24	80			(b) Assam.	
	29		J	J	(~) 2000	

<sup>(</sup>a) Financial Resolution, No. 704, dated 22nd February 1866.
(b) Ditto ditto, No. 3292, dated 31st October 1868.
(c) Home, Revenue, and Agricultural Department, No. 171, dated 6th May 1878.

## General Alphabetical List of the Officers of the Senior Department

1	2	3	4	5		6	7
Number.	Names of Officers and Branch to which originally posted.	Passed in Vernacular.	Age.	Renk.		Grade.	Salary,
-			Y. M. D.				Rs. A. P.
1	Anderson, Colonel F. C., s. c. [Rev.]	P.	54 6 8	Deputy Superintendent		lst grade	1,627 14 0
2	Andrew, Major D. C., s. c [Rev.]	Р. Н.	40 9 15	Ditto		3rd grade	1,000 0 0
3	Badgley, Major W. F., s. c. [Topogl.]	P. H.	44 1 21	Ditto	•••	Ditto	1,000 0 0
4	Baird, Major A. W., R. E. [G. T. S.]	Р. Н.	39 2 5	Assistant Superintendent		{ Ist grade†	
5	Barrett, Mr. E. C [Rev.]	H. S.	38 8 16	Ditto	•••	2nd grade	
6	Barron, Major W., s. c [Rev.]	Р. Н.	43 11 15	Deputy Superintendent	<b></b>	3rd grade	1,000 0 0
7	Beavan, Major R., s. c [Rev.]	Р. Н.	37 3 11	Assistant Superintendent		{ 2nd grade† 2nd grade	750 0 0
8	Beverley, Mr. W. G [G. T. S.]	Not passed.	46 2 15	Ditto	ļ	{ 2nd grade† 3rd grade	650 0 0}
9	Branfill, LieutCol. B. R., B. c. [G. T. S.]	Р. Н.	48 1 8	Deputy Superintendent		2nd grade	1,300 0 0
10	Campbell, Mr. J [Rev.]	Not passed	53 10 27	Assistant Superintendent		1st grade	
11	Campbell, Bt. LieutCol. W. M., n.E.	Passed	42 5 12	Deputy Superintendent		2nd grade	
12	Carter, Major T. T., R. R [G. T. S.]	Р. Н.	43 10 22	Ditto		{ 2nd grade† 2nd grade	1,482 10 0
13	Coddington, Major F., s. c [Rev.]	Р. Н.	43 7 28	Ditto		Ditto	1,300 0 0
14	Cole, Mr. W. H., M. A [G. T. S.]	н. s.	44 0 16	Assistant Superintendent		{ lst grade† lst grade	750 0 0
15	Cooke, Mr. G. H [Rev.]	L. S.	37 1 1	Ditto		{ 2nd grade† { 2nd grade	::: }
16	Cowan, Major S. H., s. c [Rev.]	Р. Н.	40 3 16	Ditto		Ditto	750 O O
17	DePrée, Bt. Col. G. C., s. c. [Topogl.]	Р. Н.	49 4 28	Deputy Superintendent		1st grade	
18	Gore, Capt. St. G. C., R. E. [G. T. S.]	Not passed	32 10 8	Assistant Superintendent		{ 2nd grade c { 3rd grade	}
19	Haig, Colonel C. T., R. E [G. T. S.]	Ditto	47 2 20	Deputy Superintendent		2nd grade.,.	1,600 0 0
20	Harman, Captain H. J., n. e. [G. T. S.]	L. S.	31 7 17	Assistant Superintendent	•	{ 2nd grade† { 3rd grade	750 0 0
21	Heaviside, Major W. J., n. E. [G. T. S.]	Р. Н.	41 6 27	Deputy Superintendent		3rd grade	1,182 10 0 1,600 0 0
22	[G. T. S.]	Not passed	52 5 0	Ditto	•••	1st grade 2nd grade	1,000 0 0
23 24	Herschel, Major J., R. E., F. R. S.[G.T.S.] Hill, Captain J., R. E [G. T. S.]	P. H. Not passed	44 2 1	Ditto Assistant Superintendent	•••	1st grade	1,140 0 0
25	Hobday, Captain J. R., s. c [Topogl.]	H. S.	31 5 16	Ditto		3rd grade	600 0 0
26	Holdich, Bt. Major T. H., B. E. [Topogl.]	L. S.	38 10 16	Ditto		lst grade	1,140 0 0
27	Horst, Mr. H [Topogl.]	Not passed	48 1 27	Ditto		Ditto	•••
28	Hutchinson, Major H. S., s. c. [Rev.]	Р. Н.	41 8 20	Ditto		2nd grade	
29	Jackson, Mr. E. J [Rev.]	L. S.	38 0 0	Ditto		Ditto	600 0 0
30	James, Mr. J. O. N [Topogl.]	Not passed	52 4 25	Deputy Superintendent	•••	3rd grado	1,300 0 0

## $_{\mbox{\scriptsize of}}$ the Survey of India as it stood on the 1st January 1882.

-	8	9	10	11	12
Number.	Date of first appointment to Department.	Date of appointment to present grade.	* Period of service counting for pension on 1st Jan. 1882.	Present Post.	Remarks.
			Y. M. D.		
1	Sept. 10, 1852	April 1, 1868		In charge Mirzapur District [Cadas- tral] Survey, N. W. P., Naini Tal.	
2	Dec. 30, 1862	Jan. 1, 1878		In charge South Deccan Topographical Survey, Bombay, Poona.	
3	May 3, 1865	Dec. 14, 1880	•	On special duty, Manipur and Burma Boundary.	
4	{ Dec. 4, 1868	Oct. 1, 1871 } Jan. 1, 1879 }	   •••	On furlough	For 1 year and 149 days, from 15th October 1991.
5	Dec. 30, 1868	Dec. 30, 1868	17 7 3	Ditto	For 2 years, from 22nd July 1880. Joined th Junior Branch, 18th November 1862. Slok leave fo
6	June 27, 1862	April 1, 1870		In charge Ghazipur District [Cadastral] Survey, N. W. P., Naini Tal.	one month, from 20th June 1869.
7	July 17, 1868	Nov. 9, 1869 } Oct. 27, 1878 }		In charge Beluchistan Topographical Party	Offg. Aset. Superintendent, 1st grade.
8	{ April 1, 1871	April 8, 1871 } Jan. 1, 1878 }	20 8 12	Tidal and Levelling Operations, India and Burma, Poona.	Offg. Asst. Supdt., 1st grade. Joined the Juni Branch, 1st July 1854. Service reckoned under ne rules.
9	Oct. 4, 1858	Oct. 1, 1871		In charge Bombay Party, Mussoorie.	( For 2 years, from 1st February 1991.
10	Nov. 29, 1865	Nov. 29, 1867	30 3 29a	On furlough	) (a) Service reckoned under new rules. Furlough, p. from 6th May 1877 to 6th January 1978, Inclusive Joined the Junior Branch, 6th October 1844.
1Ì	Jan. 30, 1863	Jan. 1, 1879		Ditto	Private affairs for 6 months, from 10th November 186
12	{ Mar. 1, 1862	Oct. 1, 1871 Jan. 1, 1878	•••	In charge Khandesh and Bombay Native States, Topographical Survey.	
13	Jan. 17, 1862	Oct. 27, 1878		Deputy Surveyor General's Office, Cal-	
14	{ Jan. 3, 1867α Sept. 1, 1867b	Dec. 4, 1870 } Oct. 27, 1878 }	13 11 29	On duty at Head Quarters Offices, Dehra Dun.	(a) Appointed on probation. Exclusive of service: Professor of Mathematics, Govt. College, Agr from 14th April 1802 to end of Feb. 1864. (b) Brought on the strength of the Department.
15	{April 1, 1870	May 10, 1871 } Dec. 14, 1880 }	13 5 17	On furlough	For 1 year, from 22nd May 1880, extension for 1 yea Joined the Junior Branch, 6th Dec. 1866.
16	Jan. 19, 1867	Mar. 17, 1868 } April 1, 1874 }		On duty, Head Quarters, Calcutta	Offg. Asst. Superintendent, 1st grade.
17	Oct. 20, 1854	Oct. 20, 1866		On furlough	For 1 year, from 9th December 1881.
18	{Apl. 11, 1873	Apl. 11, 1873 } April 1, 1874 }		Ditto ,	{ For 2 years, from 11th December 1880. { (c) Under the organization of 1874.
19	Sept. 22, 1859	Oct. 1, 1867		In charge Guzerat Survey, Poona	Offg. Deputy Superintendent, 1st grade.
20	{ June 3, 1872	June 3, 1872 } April 1, 1874 }		In charge Survey, Darjeeling	Offg. Asst. Superintendent, 2nd grade.
21		April 5, 1872		In charge No. 1 Astronomical Party.	
22	Apl. 1, 1854	April 1, 1866	26 6 14	In charge Head Quarters Offices, Dehra Dun.	Joined the Junior Branch, 14th April 1844. Service reckoned under new rules.
4	Nov. 12, 1859 Dec. 18, 1866	Oct. 1, 1867 Oct. 30, 1870		On duty, Europe.  In charge Tidal and Levelling Operations	Offg. Deputy Superintendent, 3rd grade.
5	Sept. 11, 1874	July 7, 1875		Guzerat Survey	Offg. Asst. Superintendent, 2nd grade.
26	July 23, 1866	Dec. 15, 1868	•••	In charge Kohat Frontier Topographical	Offg. Deputy Superintendent, 3rd grade.
7	April 1, 1868	Oct. 1, 1869	23 7 1	Party.  On special leave with subsistence allowance.	On furlough for 2 years, from 5th June 1879, extension for 3 months. Joined the Junior Branch, 1st September 1864. Service reckoued under new rules,
8	Aug. 13, 1867	Aug. 13, 1868 } April 1, 1874 }		On furlough	For 1 year, from 29th August 1981.
9	Nov. 5, 1868	Nov. 5, 1868	12 8 26	Hanthawaddy District [Cadastral] Survey, British Burma, Rangoon.	Joined the Junior Branch, 28th Sept. 1864. Sic leave from 4th July to 3rd Aug. 1467. Sick leav from 10th Aug. to 30th Nov. 1867. Europe, medic certificate, from 23rd July 1871 to 10th Nov. 187. Furlough to Europe, from 1st May 1880 to 3r December 1891.
10	April 1, 1866	April 1, 1869	28 10 16	In charge Engraving and Cartographic Branches, Head Quarters, Calcutta.	Officiating Deputy Superintendent, 2nd grade, Assist aut Surveyor General. Joined the Junior Branch, 201 July 1845. On Turlough, from 1st April 1878 to 9tl October 1879. Service reckoued under new rules.

<sup>†</sup> Of the two grades here given the first was under the organization of 1866.

1	2	0	i		<del></del> -				
		3		4		5		6	7
Number.	Names of Officers and Branch to which originally posted.	Passed in Vernacular.	   	Age.		Rank.		Grade.	Salary,
			Υ.	М.	D.		_	<del> </del>	Rs. A. P.
31	Johnson, Mr. E. T. S [Rev.]	Not passed	53	8	2	Deputy Superintendent	•••	3rd grade	1,000 0 0
32	Lench, Bt. LtCol. E. P., v. C., B. B.	L. S.	34	8	20	Assistant Superintendent		{ 2nd grade†	890 0 0}
33	Longe, Lieut. F. B., R. E [Topogl.]	Not passed	25	2	2	Supernumerary Surerintendent		3rd grade	570 0 0
34	Macdonald, LieutCol. Donald, s. c.	Р. Н.	46	0	21	Deputy Superintendent		2nd grade	1,300 0 0
35	Martin, Captain Gerald W., s. c. [Rev.]	H. S.	34	7	2	Assistant Superintendent		{ 3rd grade†	}
36	McCullagh, Major J. R., R. E. [G. T. S.]	L. S.	39	9	5	Ditto		{ 1st grade†	932 10 0
37	McGill, Mr. J [G. T. 8.]	Not passed	51	2	9	Ditto	•••	{ 1st grade† 2nd grade	750 0 9 
38	Pullan, Major A., s. c. [G. T. S.]	Р. Н.	45	9	0	Deputy Superintendent	•••	3rd grade	1,000 0 0
39	Riddell, Major R. V., n. E. [Topogl.]	Р. Н.	41	9	19	Ditto	<b></b> .	Ditto	1,482 10 0
40	Rogers, Major M. W., n. E. [G. T. S.]	L. S.	39	10	26	Assistant Superintendent		lst grade	1,182 10 0
41	Ryall, Mr. E. C [G. T. S.]	Not passed	43	11	15	Ditto	•••	{ 2nd grade† { 3rd grade	600 0 0
42	Sandeman, Major J. E., s. c. [Rev.]	Р. Н.	38	3	29	Deputy Superintendent		3rd grade	
43	Sconce, LieutCol. J., s. c., [Rev.]	Р. Н.	45	8 :	29	Deputy Surveyor General			2,200 0 0
44	Scott, Captain A. J. C., s. c. [Rev.]	H. S.	34	4	12	Assistant Superintendent		3rd grade	
45	Smart, Mr. R. B., Senior [Rev.]	Not passed	54	9 :	28	Deputy Superintendent		2nd grade	
46	Smith, Major H. L., s. c., M. A., L. L. B. [Rev.]	Р. Н.	42	9	18	Assistant Superintendent		1st grade	750 0 0
47	Steel, Major E. H., s. c [Rev.]	H. S.	40	8	5	Ditto		2nd grade	•••
48	Strahan, Major C., B. B. [Topogl.]	Not passed	38	7 :	25	Deputy Superintendent		3rd grade	1,482 10 0
49	Strahan, Major G., B. B. [Topogl.]	P. H.	42	10 :	24	Ditto	•••	2nd grade	1,482 10 0
50	Talbot, Mr. H. B [Rev.]	L. S.	51	2	5	Assistant Superintendent		{ lst grade†   { lst grade	750 0 0
51	Talbot, Lt. the Hon'ble M. G., R. E. [Topogl.]	H. S.	27	3	17	Supernumerary Superintendent		3rd grade	570 0 0
52	Tanner, LieutCol. H. C. B. Bombay, s. c. [Rev.]	Р. Н.	46	5	15	Deputy Superintendent	•••	Ditto	1,000 0 0
53	Thuillier, Major H. R., n. E. [G. T. S.]	Р. П.	43	9	5	Ditto		{ 1st grade† { 1st grade	1,600 0 0}
5 <b>L</b>	Walker, LieutGenl. J. T., c. B., R. E.,	Р. Н.	5 <b>5</b>	1	0	Surveyor General of India			3,000 0 0
55	Waterhouse, Major J., s. c. [G. T. S.]	Р. Н.	39	5	8	Assistant Superintendent		lst grade	1,000 0 0
56	Wilkins, Major W. H., s. c [Rev.]	Р. Н.	40	2	25	Deputy Superintendent		3rd grade	1,000 0 0
57	Wilmer, Major J. R. s. c [Topogl.]	H. S.	40	11	12	Assistant Superintendent		{ 1st grade† 2nd grade	750 0 0
58	Woodthorpe, Bt. LieutCol. R. G., n. E. [Topogl.]	L. S.	37	3	8	Ditto	•••	{ 2nd grade† { 2nd grade	890 0 0}

+ Of the two grades here given	, the first was under the organization of 15	66.
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	8	9	10	11	12
Number.	Date of first appointment to Department.	Date of appointment to present grade.	*Period of service counting for pension on 1st Jun. 1882.	Present Post.	Rеманка.
31 32 33 34 35 36 37 38 39 40	Nov. 21, 1862  {Oct. 6, 1871 Mar. 15, 1880 Dec. 19, 1860  {Mar. 24, 1871 {Feb. 12, 1869 {Mar. 1, 1871 Jan. 18, 1863 Aug. 28, 1862 July 30, 1866	July 5, 1670 Oct. 6, 1871 Jan. 1, 1879 Mar. 15, 1880 Jan. 1, 1873 April 1, 1873 Jan. 1, 1872 Dec. 14, 1880 Jan. 1, 1874 Jan. 1, 1874 Jan. 1, 1878 Oct. 1, 1868		In charge Meerut, &c., Districts Survey, N. W. P. In charge Hooghly River Survey Mysore Topographical Survey In charge Dehra Ismail Khan, &c., Districts Survey, Punjab, Murree. Offg. Deputy Assay Master, Bombay Mint. In charge Hanthawaddy District [Cadastral] Survey, British Burma. On special duty, Head Quarters, Calcutta In charge Kattywar and Cutch Survey, Poona. Supdt., Mathl. Instt. Dept., and in charge Litho. Branch, Head Quarters, Calcutta. In charge Eastern Frontier Series, Bangalana	Joined the Junior Branch, 13th October 1847.  Offg. Assistant Superintendent, 1st grade.  Temporarily attached.  Offg. Asst. Sapdt., 1st grade. Farlough for 1 year, from 4th July 1879. Joined the Junior Branch, 1st Oct., 1861. Service reckoned under new rules.  Offg. Depy. Superintendent, 2nd grade. Assistant Surveyor General.  Offg. Depy. Superintendent, 3rd grade.
41 42	April 1, 1873 Oct. 6, 1864	April 1, 1873 } April 1, 1874 } Jan. 1, 1879	26 8 6	galore.  Darjceling Survey Party  On furlough	Offic. Asst. Superintendent, 2nd grade. Joined the Junior Branch 26th April 1855. Two hundred and twenty-five days sick leave included under old rules.  For 1 year and 26 days, from 9th August 1891.
44 44 45	Oct. 21, 1859  Jan. 17, 1872  Oct. 6, 1860	Jan. 1, 1879 Jan. 17, 1873 April 1, 1869	32 4 18	Deputy Surveyor General, Calcutta.  On furlough  On furlough {	On medical certificate to Europe for 2 years, from 21st April 1879, extension for 6 months; further exton- sion for 6 months.  For 2 years, from 10th January 1890, Jained the Junior Branch, 21st September 1846, Sick leave, from 2nd May to 30th June 1848, Ditto, from 26th October 1848 to 20th January 1849, Ditto, from 8th July 1887 to 1814 January 1859.
46 47 48 49	Mar. 26, 1866  Feb. 1, 1867  Sept. 26, 1863 July 2, 1862	April 1, 1874 5 Dec. 1, 1867 Oct. 26, 1870		In charge Konkan Topographical Survey, Bombay, Poona. On furlough In charge Gwalior and Ceutral India Topographical Survey. In charge No. 2 Astronomical Party.	Assistant Superintendent, let grade.  For 1 year, from 8th December 1831.  Offg. Depy. Superintendent, 2ud grade.
50 51 52 53	April 1, 1866 Mar. 15, 1880 Oct. 10, 1862  May 21, 1859	1	1	In charge Tharawaddy District [Cadastral] Survey, British Burma, Rangoon. Bombay Party On duty, Head Quarters Office, Dehra Dun. In charge Mysore Topographical Survey.	Joined the Junior Branch, 1st December 1848. Temporarily attached.
54 55 56 57 58	Dec. 1, 1853 July 23, 1866 Apl. 27, 1863 { Aug. 24, 1869 July 14, 1871	'		Surveyor General of India.  In charge Photographic Branch, Head Quarters, Calcutta. In charge Bassein District [Cadastral] Survey, British Burma, Rangooo. In charge Bhopal and Malwa Topographical Survey. In charge Khasi and Garo Hills Topographical Survey.	Offg. Depy. Superintendent, 3rd grade.  Offg. Asst. Superintendent, 1st grade.  Ditto ditto.

<sup>\*</sup> Applies only to officers who are under the Uncovenanted Service Rules.

# General Alphabetical List of the Officers of the Junior or Subordinate

	2		3	4		<u> </u>	5			7		=
Numper.	Names of Officers and I originally po	rs and Branch to which nally posted.		Age.		Ran	ık.		Grade.	Sal	lary.	
_				Y.	м. г				<u> </u>	Rs.	Α.	P.
1	Adams, Mr. F.	[Topogl.]		45	8 (	Surveyor	***	•••	3rd grade	350	0	0
2	Atkinson, Mr. D.	[Topogl.]		44	7 2	Ditto	•••	•••	2nd grade	400	0	0
3	Atkinson, Mr. E. S. P.	[Topogl.]		36	5 4	Ditto		•••	3rd grade	350	0	0
4	Atkinson, Mr. G.	[G. T. S.]		38	2 20	Ditto		•	2nd grade	400	^	^
5	Baness, Mr. J. F.	[Topogl.]		51	6 1	Ditto	•••	•••	lst grade	600	0	
6	Barckley, Mr. W. C. G.	[Topogl.]		30	2 9	Assistant Surveyor		•••	2nd grade	200		
7	Barker, Mr. J. A.	[Topogl.]		35	8 18	Ditto		•••	lst grade	250		
8	Belcham, Mr. G.	[G. T. S.]	H. S.	36	10 18	Surveyor			4th 3	900	^	_
9	Belletty, Mr. N. A.	[Topogl.]	1	53	3 27	, , , , ,	•••	•••	4th grade	300 500	0	
10	Berkeley, Mr. L. F.	[Rev.]		27			***	•••	3rd grade	160	0	
11	Bond, Mr. J	FO (D 0.3							g.u.z.,,,,		·	٠
12	Bond, Mr. J  Bryson, Mr. A.	[G. T. S.]	 		11 24		•••	•••	1st grade	250	0	
13	Buttress, Mr. W. S.	[G. T. S.]	H. S.	32	4 1	Ditto	•••	•••	3rd grade	80	0	
	Daviness, 121, 111 S.	[1664.]	•••	3/	10 12	Surveyor	•••		Ditto	350	0	0
14	Campbell, Mr. C. W.	[Rev.]		50	7 24	Ditto	•••	•	1st grade	500	0	0
15	Campbell, Mr. D.	[Topogl.]		29	1 13	Assistant Surveyor	•••		3rd grade	160	0	0
16	Campbell, Mr. G.	[Rev.]		33	5 19	Ditto	***		2nd grade	•••		
17	Chamarett, Mr. A.	[Topogl.]		49	1 1	Surveyor	•••		1st grade	500	0	0
18	Chennell, Mr. A. W.	[Topogl.]		35	1 0	Ditto			4th grade	300	0	٨
19	Christie, Mr. A.	[G. T. S.]	н. s.	36	3 1	Ditto	•••		Ditto			0
20	Clarke, Mr. L. H.	[G. T. S.]		47	6 27	Ditto			2nd grade		0	
								" ]				
21	Claudius, Mr. T. E. M.	[Topogl.]	•••	35	7 0	Ditto	•••		4th grade		0	
22	Collins, Mr. D. J.	[G. T. S.]	•••	27	7 27	Assistant Surveyor	•••	•••	3rd grade	160	0	0
23	Connor, Mr. E. J	[G. T. S.]	L.S.	33	4 15	Ditto			1st grade	250	0	0
24	Connor, Mr. J.	[Rev.]		34	3 24	Ditto	•••		Ditto	325	0	0
25	Cooper, Mr. A.	[Topogl.]		41	2 4	Ditto	•••		2nd grade	100	0 (	0
26	Copping, Mr. G. R.	[Topogl.]	L. S.	28	6 6	Ditto			2nd grade	160	0 (	0
27	Corbett, Mr. W. D.	[Rev.]		31	<b>7</b> 0	Ditto		,	lst grade	••••		
28	Corkery, Mr. H.	[G. T. S.]	L. S.	30	4 10	Ditto			2nd grade	176	0 (	0
29	Cornelius, Mr. W. J.	[Topogl.]	L. S.	32	9 1	Ditto			lst grade	250	0 (	0
30	Cowley, Mr. P. A. G.	[Rev.]	L. S.	39 1	1 15	Surveyor			2nd grade	400	0 (	0

# Department of the Survey of India as it stood on the 1st January 1882.

8		9	10	11	12				
Number.	Date of first appointment to Department.	Date of appointment to present grade.	Period of service counting for pension on 1st Jan. 1982.	Present Post.	Remarks.				
			Y. M. D.						
1	Oct. 1, 1860	April 1, 1877	25 1 27a	On duty at Head Quarters, Calcutta	(a) Inclusive of service as Sub-Surveyor, from 3rd Novem-				
2	Aug. 4, 1856	Jan. 1, 1871	25 4 28	Bombay Party.	ber 1856 to 30th September 1860.				
3	Aug. 13, 1861	Dec. 17, 1880	13 1 2	Mirzapur District [Cadastral] Survey, N. W. P.	Furlough for 1 year 3 months and 13 days, from 28th July 1870 to 8th November 1877, and sick leave for 19 days in September 1867.				
4	Aug. 1, 1859	June 7, 1881	22 2 206	Drawing Office, Head Quarters, Dehra Dun.	(b) Service reckoned under old rules.				
6	Sept. 5, 1856	May 1, 1870	25 3 26c	Chief Draftsman, Head Quarters, Calcutta	(c) Service reckoned under new rules.				
6	Dec. 1, 1871	April 1, 1881	8 2 9	Darjeeling Party	Inclusive of special leave to Europe on full pay for 1 year 10 months and 26 days, from 20th April 1878 to 2nd March 1878.				
7	Sept. 1, 1865	Jan. 1, 1878	13 8 18	Khandesh and Bombay Native States Topogl. Survey.					
8	Nov. 1, 1862	June 1, 1874	19 2 0	Tidal and Levelling Operations, India and Burma.	Service reckoned under old rujes.				
9	July 16, 1847	April 1, 1866	34 5 16	On duty at Hend Quarters, Calcutta	Ditto ditto.				
10	Aug. 16, 1875	April 1, 1881	5 4 3	Ghazipur District [Cadastral] Survey, N. W. P.					
11	Oct. 18, 1866	Oct. 1, 1874	9 11 4	No. 2 Astronomical Party	Exclusive of 20 days' sick leave.				
12	Sept. 20, 1869	Oct. 1, 1873	10 4 1	On half-pay list, from 1st May 1880.	. •				
13	Sept. 1, 1860	Nov. 13, 1879	21 4 0	Dohra Ismael Khan, &c., Districts Survey, Punjab.	Copyist, from 1st to 30th September 1860.				
14	Nov. 1, 1853	June 26, 1880	28 2 0	Mirzapur District [Cadastral] Survey, N. W. P.					
15	Nov. 1, 1874	April 1, 1881	7 1 13	Khasi and Garo Hills Topogl. Survey	Joined as a Sub-Surveyor on 3rd July 1972.				
16	Jan. 1, 1864	April 1, 1881	11 2 10	On furlough	For 1 year from 22nd September 1981. Office Assistant from 1st January 1864 to 20th February 1874.				
17	June 2, 1852	Mar. 1, 1871	29 6 29	Geographical Examiner, Head Quarters, Calcutta.					
18	May 1, 1864	Nov. 1, 1879	12 1 0	Khasi and Garo Hills Topogl. Survey	Furlough to Europe for 2 years, from 21st November 1877 to 20th November 1879. Probationer, from 10t				
19	Aug. 7, 1863	Oct. 1, 187	14 3 1	Guzerat Survey.	November 1802 to 30th April 1864,				
20	Nov. 26, 1855	Dec. 1, 1872	26 1 5	On duty at Head Quarters, Dehra Dun, as Solar Photographer.					
21	Aug. 10, 1863	Jan. 1, 1880	13 7 0	Kohat Frontier Topogl. Survey.					
22	Oct. 6, 1873	June 11, 1880	5 6 9	Tharawaddy District [Cadastral] Survey, British Burma.	Exclusive of 40 days' leave on medical certificate, from 2nd July to 19th August 1879.				
23	Mar. 1, 1868	July 1, 187	10 10 10	Tidal and Levelling Operations, India and Burma.	Exclusive of 6 months and 5 days' leave on privat				
24	Feb. 15, 186	Dec. 1, 187	4 12 3 24	Draftsman, Office of Deputy Surveyor General, Calcutta.					
25	Dec. 1, 1867	7 April 1, 1874	18 9 Oa	On half-pay list, from 6th October 1879	(d) Service reckoned under old rules; includes previous service in Pogu Survey, from 2nd January 1803 to 301 November 1867.				
26	Aug. 11, 187	Oct. 11, 188	1 6 6 6	Bhopal and Malwa Topogl. Survey					
27	Dec. 12, 186	8 April 1, 188	1 9 7 0	On leave on private affairs	Office Assistant, from 1st December 1808 to 31st Jul 1870. For six months from 12th December 1881.				
28	Nov. 20, 187	3 April 1, 188	1 7 5 17	Beluchistan Topogl. Survey	Exclusive of leave without pay, from 21st March to 13t November 1878.				
20	Aug. 15, 186	6 July 8, 187	9 10 9 1	Gwalior and Central India Topogl.					
30	Sept. 1, 185	Nov. 1, 187	9 22 4 0	Survey.  Hooghly River Survey, Bengal. Temporarily detached on Sylhet Test Survey.					

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		<del></del>	-	-		<del>-</del>			6	-	7	
Number.	Names of Officers and originally po		Passed in Vernacular.	Age.		Rank.			Grade.	Sa	lary.	
		·		<b>Y</b> . :	M. D.					Ra	Α.	P.
31	Coxen, Mr. J. T. U.	[Rev.]		41	3 22	Assistant Surveyor	•••	•••	1st grade	250	0	0
32	Cusson, Mr. G. D.	[G. T. S.]	L. S.	35	8 7	Ditto	•••	•••	Ditto	250	0	٥
33	Dickinson, Mr. R. R.	[Rev.]	L. S.	30	5 6	Ditto	•••		2nd grade	176	0	0
34	Doran, Mr. P. J. W.	[Topogl.]	L.S.	32	7 27	Ditto	•••		1st grade	250	0	0
35	Dowman, Mr. H.	[Rev.]	•••	35	6 20	Surveyor	•••		4th grage	300	0	0
36	Drew, Mr. E. B. M.	[Rev.]		27	8 10	Assistant Surveyor		•••	3rd grade	160	0	0
37	D'Souza, Mr. A.	[G. T. S.]		44	4 17	Surveyor	•••	•••	let grade	500	0	0
38	Duhan, Mr. H.	[G. T. S.]		54 ]	1 22	Ditto	•••	•••	Ditto	650	0	0
39	Dunne, Mr. T H.	[Rev.]	L. S.	34	0 5	Assistant Surveyor	•••		Ditto	250	0	0
40	Ewing, Mr. A	[Topogl.]		<b>2</b> 0	0 0	Proby. Ditto	•••		3rd grade	80	0	0
41	Ewing, Mr. R. C. D.	[Rev.]	H. S.	33	6 <b>2</b> 0	Assistant Surveyor	***		1st grade	250	0	0
42	Ewing, Mr. W. H. D.	[Rev.]		24	4 7	Ditto	•••		3rd grade	144	0	0
43	Fielding, Mr. W	" [G. T. S.]	L. S.	33	7 13	Ditto			1st grade	250	0	0
41	Fleming, Mr. G. L.	[Topogl.]		27	8 29	Ditto			2nd grade	168	0	0
45	Ford, Mr. C. W. J.	[Rev.]		28	9 6	Ditto			Ditto	192	0	0
46	Freeman, Mr. T. F.	[Rev.]	L S.	30	9 27	Ditto	•••		1st grade			Ì
47	George, Mr. A.	[G. T. S.]		26 1	1 18	Ditto			3rd grade	144	0	0
48	George, Mr. C.	[Topogl.]		29	0 24	Ditto			Ditto	144	0	0
49	Gibson, Mr. A. J.	[Rev.]		39	9 0	Surveyor			3rd grade	350	0	٥
<b>5</b> 0	Gibson, Mr. R. A.	[Topogl.]		27	5 26	Assistant Surveyor			2nd grade	220	0	0
<b>5</b> 1	Graham, Mr. E.	[Topogl.]	L S.	28	2 0	Ditto			Ditto	176	0	0
52	Grant, Mr. F.	[Rev.]		45	9 6	Surveyor			Ditto	400	0 (	٥
53	Gwynne, Mr. N. C.	[G. T. S.]		38	9 25	Ditto			4th grade	300	0	0
54	Hall, Mr. G. T.	[G. T. S.]	L. S.	29	8 24	Assistant Surveyor			2nd grade	200	0	Q
65	Hamer, Mr. C. F.	[Topogl.]		35	2 24	Surveyor			4th grade	300		- [
56	Hanby, Mr. H. T.	[Rev.]	L. S.	35	2 12	Ditto		[	Ditto	300	0	٥
57	Hickie, Mr. J	[G. T. S.]	L.S.	32 1	1 17	Assistant Surveyor			1st grade	250	0 (	١٥
58	Higgs, Mr. J. A.	[Topogl.]			9 0	Proby. Ditto			3rd grade	120	0 (	0
59	Hill, Mr. E. P. S.	[Rev.]		27	6 17	Assistant Surveyor		.	2nd grade	184	0	0
60	James, Mr. A. J.	[Topogl.]	L. S.	35	1 12	Surveyor			4th grade	300	0 (	0
	99				!				. <u> </u>			انت

	8	9	10	11	12
Number.	Date of first appointment to Department.	Date of appointment to present grade.	Period of service counting for pension on 1st Jan. 1882.	Present Post.	Remarks.
			Y. M. D.		
31	May 16, 1863	Nov. 1, 1879	18 0 22	Beluchistan Topogl. Survey	Sick leave, from 8th to 31st October 1878, and 6 month from 12th November 1878.
32	May 8, 1868	April 1, 1881	12 3 7	Guzerat Survey	Exclusive of furlough for 364 days, from 1st Novembe 1879 to 30th October 1880.
33	April 16, 1873	April 1, 1881	8 5 6	Konkan Topogl. Survey	Apprentice, from 1st April 1872 to 15th April 1873.
34	Feb. 1, 1867	July 6, 1880	9 11 3	Gwalior and Central India Topogl. Survey.	
35	Oct. 16, 1862	Oct 16, 1874	19 2 1	Hanthawaddy District [Cadastral] Survey, detached on Waste Land Survey, Akyab.	Absent without leave, 3 days. Sick leave, 2 days in Oct. 1865; 4 days in Dec. 1665, and from 11th to 166 December 1866.
36	May 5, 1873	April 1, 1881	3 11 26	Ghazipur District [Cadastral] Survey, N. W. P.	Exclusive of leave without pay, from 17th April 1877 of 31st December 1878. On half-pay list, from 8th No ember 1878 to 31st March 1881.
37	Feb. 19, 1856	Sept. 1, 1875	21 1 15	Guzerat Survey	Exclusive of 349 days' furlough, 77 days' leave o medical certificate, and 33 days' preparatory leave under new rules.
38	April 22, 1845	April 1, 1866	31 6 22	Personal Assistant to the Surveyor Genl. of India.	Exclusive of 16 months' furlough and 1 month's subs diary leave, from 1st April 1870 to 30th August 1871. Service reckoned under new rules.
39	Feb. 15, 1865	Dec. 1, 1874	11 11 24	Bassein District [Cadastral] Survey, British Burma.	Absent without leave I day, and sick leave for 10 day in October 1865.
40	Nov. 16, 1881	•••		Khasi and Garo Hills Topogl Survey.	
11	June 9, 1866	Aug. 1, 1878	11 6 20	Meerut, &c., Districts Survey, N. W. P.	
12	April 15, 1878	April 1, 1881	2 2 6	Bassein District [Cadastral] Survey, British Burma.	Exclusive of 2 months and 1 day suspension, from 28t May to let July 1880, and sick loave from 2nd to 28t July 1880.
13	May 3, 1868	April 1, 1881	11 7 13	Kattywar and Cutch Survey.	
14	Aug. 11, 1873	June 7, 1881	4.16	Rajputana Topogl. Survey.	
5	Nov. 1, 1871	April 1, 1881	6 9 6	Bassein District [Cadastral] Survey, British Burma.	
16 !	Sept. 9, 1868	April 1, 1881	7 3 27	On sick leave	For one year, from 1st May 1880; extension for 6 month further extension for six months.
7	Oct. 15, 1878	April 1, 1881	3 2 17	Guzerat Survey	Exclusive of provious service as Sub-Surveyor.
18	Sept. 5, 1878	April 1, 1881	7 0 24	Khandesh and Bombay Native States [Topogl.] Survey.	Previous service as Sub-Surveyor, from 18th August 1874
	May 1, 1861	Oct. 11, 1881	20 7 27	Dehra Ismael Khan, &c., Dists. Survey, Punjab.	Absent without leave for 3 days in January 1866.
0	Dec. 1, 1870	Feb. 14, 1880	5 5 26	Map Curator, Head Quarters, Calcutta	Previous service on probation in G. T. S., from 1st Oc 1868 to 30th June 1870. Apprentice Draftsman, Surv Genl.'s Office, from 10th October to 30th Novembe 1870. Probationary Assistant Surveyor, 1st Decembe
1	Aug. 11, 1873	April 1, 1881	6 2 0	Khandesh and Bombay Native States Topogl, Survey.	1870. Previous service as Sub-Surveyor, from 1st Novembe 1872.
	July 11, 1856	April 1, 1872	25 5 21	Hanthawaddy Dist. [Cadastral] Survey, British Burma.	
2		Oct. 1, 1874	16 9 25	Kattywar and Cutch Survey.	
2	Oct. 19, 1863			••••	
	Oct. 19, 1863 Nov. 22, 1872	April 1, 1881	7 8 24	Ditto ditto.	
3		April 1, 1881 July 13, 1878	7 8 24 13 2 24	Ditto ditto.  Bhopal and Malwa Topogl. Survey.	
3	Nov. 22, 1872				
3 4 5	Nov. 22, 1872 Aug. 3, 1863	July 13, 1878	13 2 24	Bhopal and Malwa Topogl. Survey.  Ghazipur District [Cadastral] Survey,	Exclusive of six months' sick leave.
i3 i4 i5	Nov. 22, 1872 Aug. 3, 1863 Nov. 13, 1862	July 13, 1878 Nov. 13, 1874	13 2 24 19 1 18	Bhopal and Malwa Topogl. Survey.  Ghazipur District [Cadastral] Survey, N. W. P.	Previous service as Apprentice Draftsman, from 31s
i3 i4 i5 i6	Nov. 22, 1872 Aug. 3, 1863 Nov. 13, 1862 April 29, 1868	July 13, 1878 Nov. 13, 1874 April 1, 1881	13 2 24 19 1 18 10 5 17	Bhopal and Malwa Topogl. Survey.  Ghazipur District [Cadastral] Survey, N. W. P.  South Deccan Topogl. Survey, Bombay	Exclusive of six months' sick leave.  Previous service as Apprentice Draftsman, from 31s July 1878.

1	2		3	<u> </u>	4	5			6	1	7	==
Number.	Names of Officers and originally p	Names of Officers and Branch to which originally posted.			Age.	Rani	Rank.			Su	lary	
				Y. M. D.						Rs.	A.	P.
61	Jarbo, Mr. G. W.	[Rev.]	L. S.	34	3 15	Assistant Surveyor		•••	1st grade	250	0	0
62	Keating, Mr. J.	[G. T. S.]		27	7 27	Ditto			3rd grade	100	_	
63	Keelan, Mr. H. E. T.	[G. T. S.]		38	9 1	Surveyor			2nd grade	1	0	- 1
64	Kelly, Mr. F. W.	[Rev.]	H. S.	48	4 5	Ditto			lst grade		0	
65	Kelly, Mr. J. C.	[Rev.]		24	2 23	Assistant Surveyor	•••		3rd grade	144	0	0
66	Kelly, Mr. W. M.	[Rev.]		27	4 25	Ditto			2nd grade	192	0	0
67	Kennedy, Mr. J. M.	[G. T. S.]		25	1 28	Ditto			3rd grade	160	0	٨
68	King, Mr. D. A.	[Rev.]		35	1 26	Ditto		•••	lst grade	250		
69	Kinney, Mr. T	[G. T. S.]	L. S.	34	7 27	Ditto	•••		Ditto	125	0	0
70	Kitchen, Mr. A.	[Topogl.]		28	11 4	Ditto			2nd grade	184	0	0
71	Kitchen, Mr. F.	[Topogl.]	·	35	9 7	Ditto	•••		1st grade	250	0	0
72	Kitchen, Mr. H. T.	[Topogl.]		33	6 23	Ditto			Ditto	250	0	0
73	Knight, Mr. G. A.	[Topogl.]		27	8 9	Ditto			3rd grade	160	0	0
74	Kraal, Mr. C. S.	[Rev.]	L.S.	28	3 6	Ditto			Ditto	160	0	0
75	Lane, Mr. W. J.	[Rev.]		34	7 5	Ditto			1st grade	300	0	0
76	Lawson, Mr. A. M.	[Rev.]	L. S.	42	11 29	Surveyor	•••		3rd grade	350	0	0
77	Lilley, Mr. W. H.	[Topogl.]		33	0 28	Assistant Surveyor	•••		1st grade	240	0	0
78	Little, Mr. E. G.	[Rev.]		36	2 19	Surveyor	•••		4th grade	300	0	٥
79	Littlewood Mr. H. R.	[Rev.]		38	1 25	Ditto			3rd grade	350	0	0
80	Madras, Mr. S. O.	[Rev.]		31	4 16	Assistant Surveyor	•••		lst grade	250	0	0
81	Martin, Mr. E. J.	[Rev.]		30 1	10 15	Ditto	•••		Ditto	220	0	0
82	May, Mr. J. A.	[Topogl.]		40	7 16	Surveyor	•••		3rd grade	350		- 1
83	McA' Fee, Mr. C. H.	[G. T. S.]	L. S.		1 15	Ditto	•••		4th grade	300	0	۱
84	McCarthy, Mr. J. F.	[G. T. S.]	L. S.		8 2	Assistant Surveyor	•••	•••	2nd grade			
85	McCay, Mr. J.	[Topogl.]			2 23	Ditto	•••		Ditto	200		- 1
86	McGill, Mr. G. A.	[Topogl.]	L.S.		8 7	Surveyor	•••		Ditto	400	0	- Į
87	McHatton, Mr. J.	[Rev.]	L.S.	32	5 14	Assistant Surveyor	•••	•••	1st grade	250		ſ
88.	McNair, Mr. W. W.	[Topogl.]	L.S.	31	3 18	Ditto	•••		Ditto	250	0	- {
89	Murphy, Mr. J	[Rev.]		29	5 19	Ditto			2nd grade	192	0	۱۹
90	Neuville, Mr. C. J.	[G. T. S.]		47	6 12	Surveyor	•••		Ditto	200	0	0

Ī	8	9	10	11	12
	Date of first appointment to Department.	Date of appointment to present grade.	Period of service counting for pension on 1st Jan. 1882.	Present Post.	Remarks.
			Y. M. D.		
6	Nov. 1, 1866	Jan. 1, 1880	12 3 0	Tharrawaddy District [Cadastral] Survey, British Burma.	Sick leave for 15 days, from 20th May to 9th June 1866
6	June 1, 1874	Nov. 22, 1880	5 7 27	Khasi and Garo Hills Topogl. Survey.	
6	3 Aug. 17, 1858	July 8, 1879	15 9 0	On duty at Head Quarters, Dehra Dun	Exclusive of 11 months and 13 days' furlough and 1 days' sick leave under new rules.
6	Dec. 4, 1854	July 8, 1879	25 9 8	On duty, Office of Depy. Surveyor Genl., Calcutts.	Special leave for 4 months, from 21st January 1858 which was overstayed from 21st May to 18th Augus 1858. Commencement of second service, 17th Augus 1868.
6	Oct. 11, 1978	April 1, 1881	2 2 23	Dehra Ismael Khan, &c., Dists. Survey, Punjab.	
6	Oct. 1, 1872	April 1, 1881	5 4 25	Konkan Topogl. Survey, Bombay	Re-appointed to the Department, 1st Oct. 1879, after en playment in the Forest Department, from 1st Nov. 18; to 30th September 1878.
6	Aug. 19, 1875	April 1, 1881	3 1 28	Mysore Topogl. Survey.	
6	April 12, 1864	Jan. 1, 1874	13 1 25	Hanthawaddy District [Cadastral] Survey, British Burma.	Apprentice, from 12th April to 30th June 1964.
6	June 17, 1868	Oct. 1, 1874	12 0 27	On half-pay list, from 7th Dec. 1879.	
70	Oct. 1, 1872	April 1, 1881	6 11 4	Gwalior and Central India Topogl. Survey.	
71	Oct. 1, 1864	April 1, 1874	13 7 7	Mysore Topogl. Survey	Exclusive of 2 months' sick leave.
72	Nov. 1, 1867	April 1, 1881	11 6 23	Bhopal and Malwa Topogl. Survey.	
73	Aug. 11, 1873	April 1, 1880	5 8 9	South Deccan Topogl. Survey.	
74	July 24, 1874	Dec. 20, 1880	6 2 19	Hooghly River Survey	Sick leave, from 6th to 22nd February 1879.
78	Mar. 1, 1865	Dec. 1, 1874	12 2 26	Draftsman, Office of Depy. Surveyor Genl., Calcutta.	Sick leave, from 19th May to 9th July 1805, and from 7 August to 23rd October 1886.
70	Nov. 18, 1862	Oct. 30, 1879	19 1 13	Konkan Topogl. Survey, Bombay.	
77	May 1, 1868	April 1, 1881	10 7 7	Bhopal and Malwa Topogl. Survey	Exclusive of leave on medical certificate, from 14th De 1877 to 3rd Juno 1878. Previous service as Appre
78	Jan. 1, 1860	Nov. 5, 1871	22 0 0	Mirzapur Dist. [Cadastral] Survey, N. W. P.	tice, from 1st November 1867.  Apprentice, from 1st January 1860 to 4th November 186
79	Oct. 6, 1860	Jan. 1, 1878	21 2 26	Bassein District [Cadastral] Survey, British Burma.	
80	July 6, 1868	April 1, 1881	9 4 16	Ghazipur District [Cadastral] Survey, N. W. P.	
81	Sept. 16, 1867	April 1, 1981	8 10 15	Tharrawaddy District [Cadastral] Survey, British Burma.	Office Assistant, from 18th September 1887 to 31st Jul 1870.
82	Oct. 1, 1860	Oct. 1, 1874	22 0 0	On duty at Head Quarters, Calcutta	Apprentice Draftsman, from 1st January 1860.
83	Sept. 6, 1864	Aug. 1, 1875	10 1 15	Guzerat Survey.	
84	Aug. 1, 1873	April 1, 1881	6 8 2	Leave on private affairs	For six months, from 26th September 1881.
85	Dec. 1, 1870	Nov. 22, 1880	6 2 23	Khasi and Garo Hills Topogl. Survey.	
86	April 8, 1855	Jan. 1, 1871	26 8 23	In charge Rajputana Topogl. Survey	Sick leave, from 1st November 1871 to 28th Februar 1872. Service reckoned under old rules.
87	July 1, 1867	April 1, 1881	9 5 14	Hanthawaddy District [Cadastral] Survey, British Burma.	Furlough for 1 year, from let January to 31st Decembe 1879.
88	- 1, 1007	Oct. 22, 1879	9 4 18	Kohat Frontier Topogl. Survey.	
89	Nov. 22, 1868	April 1, 1881	7 5 19	Hanthawaddy District [Cadastral] Survey, British Burma.	Office Assistant, from 22ud November 1868, to 31a October 1871.
90	Dec. 1, 1855	Oct. 1, 1871	26 1 0	On half-pay list, from 3rd Nov. 1879	Inclusive of 6 months' sick leave, from 1st November 1672, reckened under old rules.

1	2		3	4	5		6	7
Number.	Names of Officers and B originally pos	ranch to which ted.	Passed in Vernacular.	Age.	Ran	, k.	Grade.	Salary.
				Y. M. D.				Rs. A. P.
91	Newland, Mr. J.	[Rev.]	L. S.	44 4 26	Assistant Surveyor	***	1st grade	250 0 0
92	Norman, Mr. C.	[G. T. S.]	L.S.	25 7 12	Ditto	•••	3rd grade	160 0 0
93	Norman, Mr. S. F.	[G. T. S.]		27 4 23	Ditto		Ditto	160 0 0
91	O'Donel, Mr. J. H.	[Rev.]		36 5 15	Surveyor	•••	4th grade	300 0 0
95	Ogle, Mr. M. J.	[Topogl.]	•••	39 9 27	Ditto	•••	Ditto	300 0 0
96	O'Sullivan, Mr. W. J.	[G. T. S.]	,	37 10 17	Ditto	•••	Ditto	300 0 0
97	Parker, Mr. G. E.	[Rev.]		31 10 18	Assistant Surveyor		2nd grade	200 0 0
98	Patterson, Mr. W. H.	[Rev.]	L. S.	43 3 6	Surveyor	•••	lst grade	
99	Pemberton, Mr. J. S.	[Rev.]	L. S.	38 5 23	Ditto		3rd grade	350 0 0
100	Рептозе, Mr. W. H.	[Rev.]	L. S.	30 2 24	Assistant Surveyor		2nd grade	200 0 0
101	Peters, Mr. P. A.	[Rev.]	L. S.	27 0 23	Ditto		3rd grade	
102	Peychers, Mr. H.	[G. T. S.]	•••	39 0 18	Surveyor		4th grade	300 0 0
103	Peyton, Mr. J.	[G. T. S.]		50 6 0	Ditto		lst grade	500 0 0
104	Pocock, Mr. L. J.	[G. T. S.]	H. S.	38 3 5	Ditto		4th grade	300 0 0
105	Potter, Mr. C. D.	[G. T. S.]	L. S.	36 3 27	Assistant Surveyor		lst grade	250 0 0
106	Price, Mr. W. C.	[G. T. S.]		35 6 8	Surveyor		4th grade	300 0 0
107	Prunty, Mr. P. F.	[G. T. S.]		27 0 6	Assistant Surveyor	•••	3rd grade	160 0 0
108	Reilly, Mr. T. W.	[Rev.]	 L. S.	40 6 7	Surveyor		Ditto	350 0 0
109	Rendell, Mr. T. H.	[G. T. S.]		37 5 9	Ditto	•••	4th grade	300 0 0
110	Robert, Mr. W.	[Topogl.]		31 4 2	Assistant Surveyor		lst grade	230 0 0
111	Scott, Mr. G. B.	[Rev.]	н. s.	37 5 6	Surveyor		3rd grade	450 0 0
112	Scott, Mr. J. R	[Rev.]	L. S.	32 9 27	Assistant Surveyor		1st grade	250 0 0
113	Senior, Mr. R. W.	[G. T. S.]	L. S.	21 1 18	Ditto		3rd grade	144 0 0
114	Seyers, Mr. C. W. F.	[Rev.]		38 4 5	Ditto		1st grade	210 0 0
115	Shaw, Mr. T.	[Rev.]	L.S.	29 1 15	Ditto	,	Ditto	230 0 0
116	Sinclair, Mr. W.	[Rev.]		44 3 7	Surveyor		2nd grade	400 0 0
117	Smart, Mr. A. D.	[Rev.]		51 2 17	Ditto		3rd grade	175 0 0
118	Smart, Mr. A. W.	[Rev.]		30 10 1	Assistant Surveyor		2nd grade	192 0 0
119	Smart, Mr. O. D.	[Rev.]		24 3 15	Proby. Ditto		3rd grade	80 0 0
120	Smart, Mr. P. C. H.	[Rev.]		25 10 <b>2</b>	Assistant Surveyor		3rd grade	144 0 0
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	Date of first appointment to Department.	Date of appointment to present grade.	Period of service counting for pension on 1st Jan. 1882.	Present Post.	Remarks.
			Y. M. D.		
1	Oct. 22, 1863	Jan. 1, 1878	18 2 10	Konkan Topogl, Survey.	
,	Oct. 12, 1874	April 1, 1881	3 7 12	Guzerat Survey.	
,	Sept. 1, 1874	April 1, 1881	5 4 23	Ditto.	
4	Oct. 1, 1863	Oct. 22, 1979	14 5 15	Bassein District [Cadastral] Survey, British Burma.	
5	July 1, 1863	April 1, 1873	16 9 27	Khasi and Garo Hills Topogl. Survey; detached temporarily on Burma and Manipur Boundary Survey.	Furlough to Europe for 2 years, from 21st Novembe 1677 to 20th November 1879.
6	Oct. 1, 1863	Oct. 1, 1874	15 10 7	Hooghly River Survey.	
7	Nov. 18, 1870	Dec. 17, 1880	9 10 18	Hanthawaddy Dist. [Cadastral] Survey, British Burma.	
8	Dec. 1, 1851	Jan. 1, 1871	19 11 15	Detached under Settlement Officer, Cachar District, Assam.	Leave on private affairs, from 1st May to 31st Augus 1862. Leave on private affairs to Europe, from 20th Jul 1872 to 1sth January 1873. Leave on private affair to Europe, from 11th July 1878 to 2nd January 188
9	Oct. 6, 1960	Jan. 1, 1878	21 2 21	Hooghly River Survey	Overstayed privilege leave by 5 days in June 1869.
0	Aug. 11, 1869	Dec. 16, 1878	8 2 24	Bassein District [Cadastral] Survey, British Burma.	
l	Nov. 1, 1873	July 6, 1880	5 0 23	Detached under Settlement Officer, Cachar.	
2	April 8, 1862	June 1, 1874	19 8 23	Computing Office, Head Quarters, Dehra Dun.	Service reckoned under old rules.
3	Feb. 3, 1860	April 1, 1874	21 10 27	On duty at Head Quarters, Calcutta	Service reckoned under old rules.
4,	July 10, 1863	July 1, 1874	16 0 7	Eastern Frontier Series	Exclusive of 89 days' sick leave.
)5	Oct. 29, 1866	Oct. 1, 1874	14 2 24	Eastern Frontier Series	Ditto of 33 days' sick leave.
96	Nov. 1, 1863	Oct. 1, 1874	13 6 8	Ghazipur District [Cadastral] Survey, N. W. P.	
)7	May 9, 1874	Sept. 21, 1880	5 0 6	Kattywar and Cutch Survey.	
18	Oct. 18, 1859			On duty, Office of Depy. Surveyor Genl., Calcutta.	Absent without leave, from 20th January to 28th For ruary 1801.
)9	Oct. 11, 1864	June 7, 1881	15 5 9	Tidal and Levelling Operations, India and Burma.	
0	Aug. 21, 1869	April 1, 1881	9 4 2	Darjeeling Survey.	·
.1	May 1, 1863	July 8, 1879	18 8 0	Dehra Ismael Khan, &c., Dists. Survey, Punjab.	Temporarily detached under Settlement Officer, Punja
2	Jan. 19, 1867	Nov. 22, 1880	10 9 27	Tharawaddy District [Cadastral] Survey, British Burma.	
3	Dec. 21, 1878	April 1, 1881		Bombay Party.	
4	Dec. 1, 1864	June 7, 1881	16 4 15	Meerut, &c., Districts Survey, N. W. P.	
5	April 21, 1869	April 1, 1881	7 1 15	Mirzapur District [Cadastral] Survey, N. W. P.	
6	Oct. 1, 1855	May 1, 1878	21 9 3	Draftsman, Office of Depy. Surveyor Genl., Calcutta.	On furlough, private affairs, from 19th April to 22r October 1877, inclusive.
17	Oct. 1, 1870 a	Oct. 1, 1870	11 3 0	On half-pay list, from 1st Jan. 1880	(a) Commencement of second service.
18	Dec. 1, 1871	April 1, 1891	8 10 1	Tharawaddy District [Cadastral] Survey, British Burma.	Three months' sick leave, from 8th July 1980,
19	Oct. 1, 1881			Mirzapur District [Cadastral] Survey, N. W. P.	
20	April 18, 1878	April 1, 1881	3 8 13	Hooghly River Survey.	_ 5

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Number.	Names of Officers and Branch to which originally posted.		Passed in Vernacular.	A	Age.		Rani	k.	Grade.	Salary.
				Y.	м. :	D.				Rs. A. P.
121	Smart, Mr. R. B. (Jr.)	[Rev.]	L. S.	34	$\epsilon$	2	Assistant Surveyor		1st grade	250 <b>0</b> (
122	Smylie, Mr. S. M.	[Rev.]	L. S.	40	1	5	Surveyor		3rd grade	350 0 (
123	Stotesbury, Mr. W.	[Topogl.]	H. S. L. S. Ca- narese.	34	5	6	Assistant Surveyor		lst grade	250 0 (
124	Swiney, Mr. G. C.	[Rev.]		32	6	4	Ditto		Ditto	250 0 (
125	Swiney, Mr. J. S.	[Rev.]		31	0 1	12	Ditto		Ditto	240 0
126	Tapsell, Mr. C.	[Topogl.]	L. S.	37	1	17	Ditto		Ditto	250 0
127	Tate, Mr. G. P.	[Topogl.]	L. S.	25	5	9	Ditto		3rd grade	144 0
128	Templeton, Mr. C. T.	[Topogl.]		29	3 2	27_	Ditto		2nd grade	200 0
129	Todd, Mr. H.	[G. T. S.]		34	4 ]	l5	Ditto	•••	1st grade	250 0
130	Todd, Mr. J.	[Rev.]		47	7	19	Surveyor	,	3rd grade	. 350 0
131	Todd, Mr. R.	[Topogl.]		36	5	20	Assistant Surveyor		1st grade	250 0
132	Todd, Mr. W.	[G. T. S.]		43	1 5	21	Surveyor		2nd grade	400 0
133	Torrens, Mr. C. P.	[G. T. S.]		30	0 :	12	Assistant Surveyor		Ist grade	230 0
134	Vander Beck, Mr. G.	[Topogl.]	L.S.	32	3 1	15	Ditto		2nd grade	192 0
135	Vyall, Mr. W. R.	[Rev.]		43	0	2	Surveyor		4th grade	300 0
136	Wainright, Mr. E. A.	[Topogl.]		33	6 2	23	Assistant Surveyor		Ist grade	250 0
137	Warde, Mr. F. E.	[Topogl.]		30	3 9		Ditto	•••	Ditto	220 0
138	Warwick, Mr. R. F.	[G. T. S.]	L. S.	26	9		Ditto		3rd grade	
139	White, Mr. P.	[Topogl.]	L. S.	31	2 2	22	Ditto		2nd grade	
140	Wilson, Mr. A. J.	[Topogl.]	L. S.	39	4	0	Surveyor		Ditto	400 0
141	Wilson, Mr. B. M.	[Rev.]		33	8 1	- 1	Assistant Surveyor		Ditto	184 0
142	Wilson, Mr. C. W.	[Rev].	L.S.	36	1 2	2	Ditto		1st grade	220 0
143	Wilson, Mr. J. H.	[Topogl.]	L. S.	35	6 2	3	Ditto		Ditto	250 0
144	Wilson, Mr. W. A.	[Rev.]	L. S.	38		2	Surveyor		3rd grade	350 0
145	Wcod, Mr. C.	[G. T. S.]	L. S.	39	5 1		Ditto		2nd grade	400 0
146	Wyatt, Mr. A. G.	[Topogl.]		36	10	6	Ditto		4th grade	300 0
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of the Survey of India as it stood on the 1st January 1882,—concluded.

	8	9	10	11	12
Number.	Date of first appointment to the Department.	Date of appointment to present grade.	Period of service counting for pension on 1st Jan. 1882.	Present Post.	Remarks.
21	Jan. 1, 1864	May 27, 1874	Y. M. D.	Bassein District [Cadastral] Survey,	Apprentice, from 1st January to 31st December 1864.
		l		British Burma.	
22	July 24, 1860	April 1, 1872	21 5 8	South Deccan Topogl. Survey, Bombay.	
23	Oct. 4, 1864	April 1, 1874	12 5 6	Mysore Topogl. Survey.	
24	Sept. 17, 1868	April 1, 1881	10 6 4	South Deccan Topogl. Survey.	
25	Jau. 5, 1869	April 1, 1881	9 0 12	Hooghly River Survey.	
26	Aug. 2, 1864	Oct. 1, 1872	15 1 16	Guzerat Survey.	
27	Mar. 12, 1878	April 1, 1881	3 5 9	Gwalior and Central India Topogl. Survey.	Apprentice, from 1st March 1874.
28	Sept. 1, 1870		1	Ditto ditto.	
29	July 15, 1865	June 1, 1874	12 3 16	Mysore Topogl. Survey	Exclusive of 30 days' sick leave.
30	Dec. 27, 1863		18 0 4	Meerut, &c., Districts Survey, N. W. P.	Overstayed privilege leave by 1 day in August 1874.
31	Nov. 1, 1863	Oct. 1, 1871	14 5 19	Dehra Ismael Khan, &c., Districts Survey, Punjab.	,
32	Jan. 11, 1856	June 1, 1874	23 10 23	On duty at Head Quarters, Calcutta	Inclusive of 2 years which count as service out 3 years and 28 days on medical certificate un old rules.
33	Dec. 12, 1868	April 1, 1881	8 0 12	Bombay Party.	
134	July 1, 1872	April 1, 1881	10 3 15	Khandesh and Bombay Native States Topogl. Survey.	Apprentice Draftsman, from 11th October 1870 to 3 July 1872.
135	June 13, 1856	April 1, 1869	25 6 18	Tharawaddy District [Cadastral] Survey, British Burma.	
136	May 1, 1866	July 13, 1878	3 11 6 13	Bhopal and Malwa Topogl. Survey.	
137	Sept. 1, 1870	April 1, 1881	8 3 24	Khandesh and Bombay Native States Topogl. Survey.	
138	July 2, 1875	April 1, 1881	3 8 11	On sick leave	Exclusive of leave on medical certificate for 2 mon from 10th October to 9th December 1877. Also 6 months, from 1st May to 31st October 1879. A 4 months and 25 days from 30th August 1891.
139	Oct. 1, 1872	April 1, 188	8 5 3	Ditto	Exclusive of sick leave for 3 months, from 21st Octo 1878. Leave extended for 3 months; further ex- sion of leave without pay up to 17th August 1879. half-pay list from 18th August 1879 to 31st August 1 On sick leave for one year from 17th October 1891.
140	Oct. 1, 1860	June 26, 1886	0 21 6 0	On duty at Head Quarters, Calcutta	Apprentice Draftsman, from 1st January 1860.
141	Nov. 15, 1872	April 1, 188	9 11 0	Hanthawaddy Dist. [Cadastral] Survey, British Burma.	Apprentice, from 1st Feb. to 14th November 1872.
142	June 21, 1867	a April 1, 188	1 13 8 22	Meerut, &c., Districts Survey, N. W. P.	(a) Commencement of second service. Sick leave f months, from 1st March 1960, and 2 months, from August 1860.
143	April 1, 1868	April 1, 188	1 13 4 23	Rajputana Topogl. Survey	Exclusive of 2 months' sick leave, from 1st July 1. Appointed as Draftsman, from 15th May 1863.
144	Jan. 1, 186	May 1, 187	8 21 0 0	Ghazipur District [Cadastral] Survey, N. W. P.	
145	May 6, 185	May 1, 187	8 23 5 10	Computing Office, Head Quarters, Dehra Dun.	Service reckoned under old rules.
146	Nov. 1, 186	April 1, 187	4 20 2 0	Khandesh and Bombay Native States Topogl. Survey.	

# Disposition List of the Officers of the Survey

		STRENG						
Number of Party.	WHERE EMPLOYED.	Sub-Surveyors.	Writers.	Chainmen and Flagmen.	Native Doctors.	Burkundazes.	Havildars.	Annual cos of Party.
	Eastern Frontier Series. British Burma	No. No.		No. 78	No. 2	No. 27	No.	Rs
	Darjeeling Survey.  Special Survey Operations in and around Darjeeling; recess quarters at Darjeeling		1	54	1	12		
	Bombay Party.  On measurement of Base Line, Mergui, British Burma			50	1	14		•••
	Kattywar and Cutch Survey.  The Province of Kattywar and Cutch, Bombay Presidency; recess quarters at Poona	11	1	145	1	27		
	Guzerat Survey. Guzerat; recess quarters at Poona	20	4	184	1	33	1	

## of India as it stood on the 1st January 1882.

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Officer in charge, Surveyors and Assistant Surveyors.	Rank and Grade.	Date of assuming charge.	Rемавке.
Major M. W. Rogers, R.E Mr. L. J. Pocock " C. D. Potter	Asst. Supdt., 1st grade. Offg. Depy. Supdt., 3rd grade. Surveyor, 4th grade. Asst. Surveyor, 1st grade.	Sept. 20, 1881.	
Capt. H. J. Harman, B.E  E. C. Ryall, Esq  Mr. W. Robert  " W. C. G. Barckley	Asst. Supdt., 3rd grade. Offg. in 2nd grade. Ditto, ditto. Asst. Surveyor, 1st grade. Ditto, 2nd grade.	Oct. 6, 1874.	
LieutCol. B. R. Branfill, B.C Lieut. the Hon'ble M. G. Talbot, B.E. Mr. D. Atkinson , C. P. Torrens , R. W. Senior	Depy. Supdt., 2nd grade Supernumerary Asst. Supdt., 3rd grade. Surveyor, 2nd grade. Asst. Surveyor, 1st grade. Ditto, 3rd grade.	Oct. 1, 1880.	
Major A. Pullan, s.c Mr. N. C. Gwynne	Depy. Supdt., 3rd grade Surveyor, 4th grade. Asst. Surveyor, 1st grade. Ditto, 2nd grade. Ditto, 3rd grade.	Apl. 26, 1879.	
Col. C. T. Haig, n.e  Capt. J. R. Hobday, s.c  Mr. A. D'Souza  " A. Christie  " C. H. McA' Fee  " C. Tapsell  " G. D. Cusson  " S. F. Norman  " C. Norman  " A. George	Depy. Supdt., 2nd grade. Offg. 1st grade. Asst. Supdt., 3rd grade. Offg. in 2nd grade. Surveyor, 1st grade. Ditto, 4th grade. Ditto, 4th grade. Asst. Surveyor, 1st grade. Ditto, 3rd grade. Ditto, 3rd grade. Ditto, 3rd grade. Ditto, 3rd grade. Ditto, 3rd grade. Ditto, 3rd grade. Ditto, 3rd grade.	Oct. 5, 1878.	

## Disposition List of the Officers of the Survey

ty.		Streng	SHMENT					
Number of Party.	WHERE EMPLOYED.	Sub-Surreyors and Computers.	Writers.	Chainmen and Flagmen.	Native Doctors.	Burkundazes.	Jemadars.	Annual cost of Party,
	No. 1 Astronomical Party.	No.	No.	No.	No.	No.	No.	Rs.
	Carrying on Electric Determinations of Longitude in India; recess quarters at Mussoorie.	**1	•••	24	•••	3		····
	No. 2 Astronomical Party.  Carrying on Electric Determinations of Longitude in India; recess quarters at Musscorie.		1	10	•••	3		
_	Tidal and Levelling Operations.	[ ====================================	 	<u> </u>	<u> </u> 	<u> </u> 	<u> </u>	
	Tidal Operations at various ports in India and Burma, also at Aden and Port Blair.	16	1	25		10		
	Levelling Operations in Bombay Presidency; recess quarters at Poona.	<b></b>	<b></b>		•••			
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## of India as it stood on the 1st January 1882,-continued.

Officer in charge, Surveyors and Assistant Surveyors.		Rank and Grade.	Date of assuming charge.	Remarks.
Major W. J. Heaviside, B.E.	•••	Depy. Supdt., 3rd grade	Oct. 1880.	
Major G. Strahan, B.E Mr. J. Bond		Depy. Supdt., 2nd grade Assistant Surveyor, 1st grade.	Nov. 5, 1881.	
Captain J. Hill, B. B  W. G. Beverley, Esq  Mr. G. Belcham  " T. H. Rendell  " E. J. Connor	•••	Asst. Supdt., 1st grade Offg. Dy. Supdt., 3rd grade. Ditto, 3rd grade. Offg. in 1st grade. Surveyor, 4th grade. Ditto ditto. Assistant Surveyor, 1st grade.	Sept. 17, 1881.	

- <del></del>		STREN	GTH OF	Lower St	DORDINA GRADES	TR Faran	LISHMENT	the Surt
Number of Party.	WHEBE EMPLOYED.	Sub-Surveyors.	Writers.	Flagmen and Carriers.	Hospital Assistants.	Burkundazes.	Apothecary.	Annual co
1	No. 1 Topographical Party.  Native States in Rajputana Agency, Oodeypur and Sirohi; recess quarters at Musscorie.	No. 5	No.	No. 19	No.	No. 3	No	Rs. 48,500
2	No. 2 Topographical Party.  Khandesh and Bombay Native States; recess quarters at Poons.	8	2	123	1	22		52,700
5	No. 5 Topographical Party.  Sebore, Agar, Indore, Bhopawar, Agencies of Central India Agency; recess quarters at Mussoorie.	5		19	1	3		54,800

of India as it stood on the 1st January 1882,-continued.

Mr. W. J. Coruelius	Date of assuming charge.	Rемавка.		
Mr. W. J. Cornelius	Oct. 18, 1880.			
Major J. R. Wilmer, s.c. (in charge)   Ditto, 2nd grade.				
C. T. Templeton				
Major T. T. Carter R.E. (in charge) Depy. Supdt., 2nd grade D.  Mr. A. G. Wyatt Surveyor, 4th grade.  " J. A. Barker Ditto, 2nd grade.  " F. E. Warde Ditto, 1st grade.  " G. Vander Beck Ditto, 2nd grade.  " E. Graham Ditto, 2nd grade.  " C. George Ditto, 3rd grade.  Mr. C. F. Hamer Surveyor, 4th grade.  " E. A. Wainright Surveyor, 4th grade.  " E. A. Wainright Surveyor, 4th grade.  " E. A. Wainright Surveyor, 4th grade.  " H. T. Kitchen Ditto, 1st grade.  " H. T. Kitchen Ditto, 1st grade.  " W. H. Lilley Ditto, 1st grade.				
Major T. T. Carter R.E. (in charge) Depy. Supdt., 2nd grade D.  Mr. A. G. Wyatt Surveyor, 4th grade.  " J. A. Barker Ditto, 1st grade.  " F. E. Warde Ditto, 2nd grade.  " G. Vander Beck Ditto, 2nd grade.  " E. Graham Ditto, 2nd grade.  " C. George Ditto, 3rd grade.  Mr. C. F. Hamer Surveyor, 4th grade.  " E. A. Wainright Surveyor, 4th grade.  " E. A. Wainright Ditto, 2nd grade.  Mr. C. F. Hamer Ditto, 3rd grade.  Mr. C. F. Hamer Ditto, 1st grade.  " E. A. Wainright Ditto, 1st grade.  " H. T. Kitchen Ditto, 1st grade.  " W. H. Lilley Ditto, 1st grade.				
Mr. A. G. Wyatt Surveyor, 4th grade.  " J. A. Barker Asst. Surveyor, 1st grade.  " F. E. Warde Ditto, 1st grade.  " G. Vander Beck Ditto, 2nd grade.  " E. Graham Ditto, 2nd grade.  " C. George Ditto, 3rd grade.  Major J. R. Wilmer, s.c. (in charge) Asst. Supdt., 2nd grade.  Mr. C. F. Hamer Surveyor, 4th grade.  " E. A. Wainright Asst. Surveyor, 1st grade.  " H. T. Kitchen Ditto, 1st grade.  " W. H. Lilley Ditto, 1st grade.				
Mr. A. G. Wyatt Surveyor, 4th grade.  " J. A. Barker Ditto, 1st grade.  " E. E. Warde Ditto, 2nd grade.  " E. Graham Ditto, 2nd grade.  " C. George Ditto, 3rd grade.  Major J. R. Wilmer, s.c. (in charge) Asst. Supdt., 2nd grade.  Mr. C. F. Hamer Surveyor, 4th grade.  Mr. C. F. Hamer Surveyor, 4th grade.  " E. A. Wainright Asst. Surveyor, 1st grade.  " H. T. Kitchen Ditto, 1st grade.  Ditto, 1st grade.				
Mr. A. G. Wyatt Surveyor, 4th grade.  " J. A. Barker Ditto, 1st grade.  " E. E. Warde Ditto, 2nd grade.  " E. Graham Ditto, 2nd grade.  " C. George Ditto, 3rd grade.  Major J. R. Wilmer, s.c. (in charge) Asst. Supdt., 2nd grade.  Mr. C. F. Hamer Surveyor, 4th grade.  Mr. C. F. Hamer Surveyor, 4th grade.  Mr. C. F. Hamer Surveyor, 4th grade.  Mr. C. F. Hamer Ditto, 1st grade.  Mr. C. F. Hamer Ditto, 1st grade.  Mr. C. F. Hamer Ditto, 1st grade.  Mr. C. F. Hamer Ditto, 1st grade.  Mr. C. F. Hamer Ditto, 1st grade.				
Major J. R. Wilmer, s.c. (in charge)  Mr. C. F. Hamer  E. A. Wainright  E. A. Wainright  Mr. T. Kitchen  Mr. C. H. T. Kitchen  Mr. C. H. T. Kitchen  Mr. C. B. Warde  Mr. C. Surveyor, 1st grade.  Ditto, 2nd grade.  Ditto, 2nd grade.  Ditto, 3rd grade.  Ditto, 3rd grade.  Ditto, 3rd grade.  Ditto, 1st grade.  Ditto, 1st grade.  Ditto, 1st grade.  Ditto, 1st grade.	Dec. 3, 1881.	,		
Major J. R. Wilmer, s.c. (in charge)  Mr. C. F. Hamer  E. A. Wainright  H. T. Kitchen  W. H. Lilley  Ditto, lst grade.  Ditto, 2nd grade.  Ditto, 3rd grade.  Ditto, 3rd grade.  Ditto, 1st grade.  Ditto, 1st grade.  Ditto, 1st grade.  Ditto, 1st grade.  Ditto, 1st grade.				
Major J. R. Wilmer, s.c. (in charge)  Mayor J. R. Wilmer, s.c. (in charge)  Mr. C. F. Hamer  E. A. Wainright  H. T. Kitchen  M. W. H. Lilley  Ditto, 2nd grade.  Ditto, 3rd grade.  Surveyor, 2nd grade.  Offg in 1st grade.  Surveyor, 4th grade.  Ditto, 1st grade.  Ditto, 1st grade.	-			
Major J. R. Wilmer, s.c. (in charge)  Mr. C. F. Hamer  E. A. Wainright  H. T. Kitchen  W. H. Lilley  Ditto, 2nd grade.  Ditto, 3rd grade.  Output  Asst. Supdt., 2nd grade. Offg in 1st grade.  Surveyor, 4th grade.  Ditto, 1st grade.  Ditto, 1st grade.  Ditto, 1st grade.				
Major J. R. Wilmer, s.c. (in charge) Asst. Supdt., 2nd grade. Offg in 1st grade.  Mr. C. F. Hamer Surveyor, 4th grade.  M. E. A. Wainright Asst. Surveyor, 1st grade.  M. H. T. Kitchen Ditto, 1st grade.  M. W. H. Lilley Ditto, 1st grade.				
Major J. R. Wilmer, s.c. (in charge)  Mr. C. F. Hamer Surveyor, 4th grade.  Mr. E. A. Wainright Asst. Surveyor, 1st grade.  Mr. T. Kitchen Ditto, 1st grade.  Mr. W. H. Lilley Ditto, 1st grade.	}			
grade.  Mr. C. F. Hamer Surveyor, 4th grade.  " E. A. Wainright Asst. Surveyor, 1st grade.  " H. T. Kitchen Ditto, 1st grade.  " W. H. Lilley Ditto, 1st grade.				
grade.  Mr. C. F. Hamer Surveyor, 4th grade.  " E. A. Wainright Asst. Surveyor, 1st grade.  " H. T. Kitchen Ditto, 1st grade.  " W. H. Lilley Ditto, 1st grade.				
" E. A. Wainright        Asst. Surveyor, 1st grade.         " H. T. Kitchen        Ditto, 1st grade.         " W. H. Lilley        Ditto, 1st grade.	Oct. 12, 1874.			
, H. T. Kitchen Ditto, 1st grade.	,			
, W. H. Lilley Ditto, 1st grade.				
"G. R. Copping Ditto, 2nd grade.				
The second second second second second second second second second second second second second second second se				

.بر ا		STRENG	тн ог L	OWER SUI	BORDINATI GRADES.	E ESTABLI	SHMENT	
Number of Party.	Where employed.	Sub-Surveyors.	Writers.	Flagmen and Carriers.	Hospital Assistant.	Burkundazes and Peons.	Apothecary.	Annual cos of Party,
6	No. 6 Topographical Party.  Naga Hills on the Eastern Frontier, Assam; recess quarters at Shillong.	No.	No.	No. 38	No.	No.	No	Rs. 70,600
7	No. 7 Topographical Party.  Meywar, Marwar, Godwar, Shabpura, Mhairwara, and Ajmere, in the Rajputana Agency, and at Simla; recess quarters at Dehra Dun.	7	2	22	1	3		62,800
8	Nos. 8 and 9 Topographical Parties.  Mysore; recess quarters at Bangalore	10	1	116	1	42		88,000
	Beluchistan Topographical Party; recess quarters at Quetta and Sukkur alternately.	4	1	56				36,200
	Kohat Frontier Topographical Party; recess quarters at Musecorie.	3		32		4		,,,,,,

Officer in charge, Surveyors and Assistant Surveyors.	Rank and Grade.	Date of assuming charge.	Rемавкэ.
Bt. LieutCol. Woodthorpe, B. E., (in charge).  Mr. M. J. Ogle  " J. McCay  " D. Campbell  " J. Keating  " A. Ewing	Asst. Supdt., 2nd grade. Offig. in 1st grade. Surveyor, 4th grade Ditto 4th grade. Assistant Surveyor, 2nd grade. Ditto, 3rd grade. Ditto, 3rd grade. Proby. Ditto, 3rd grade.	Dec. 3, 1881.	Detached temporarily on Burma and Manipur Boundary Survey.
Mr. G. A. McGill  " J. H. Wilson  " G. L. Fleming	Surveyor, 2nd grade Asst. Surveyor, 1st grade. Ditto, 2nd grade.	Oct. 1, 1881.	Offg. in charge.
Major H. R. Thuillier, R. E., (in charge) Liout. F. B. Longe, B. E  Mr. A. J. James  " F. Kitchen  " W. Stotesbury  " Hugh Todd  " J. M. Kennedy  " J. A. Higgs	Depy. Supdt., 1st grade Supernumerary Asst. Supdt., 3rd grade. Surveyor, 4th grade. Asst. Surveyor, 1st grade. Ditto, 1st grade. Ditto, 1st grade. Ditto, 3rd grade. Proby. Ditto, 3rd grade.	Oct. 20, 1881.	
Major R. Beavan, s. c. (in charge) Mr. J. T. U. Coxen , H. Corkery	Asst. Supdt., 2nd grade. Offg. in 1st grade. Asst. Surveyor, 1st grade. Ditto, 2nd grade.	July 27, 1880.	
Bt. Major T. H. Holdich, R. E. (in charge). Mr. T. E. M. Claudius , W. W. McNair	Asst. Supdt., 1st grade. Offg. Deputy Supdt., 3rd grade. Surveyor, 4th grade. Assistant Surveyor, 1st grade.	May 28, 1881.	

WHERE EMPLOYED.    STREET	No.	1 1	240	No. 1	No. 14	Rs. 68,500 1,00,000 86,000 5,000 55,400
Recess quarters at Murree.  2 Hanthawaddy District, British Burma Professional Establishment (permanent) 25 Cadastral do. (temporary) 166 Levelling  Recess quarters at Rangoon.  3 Meerut District, North-Western Provinces Professional Establishment (permanent) 30 Cadastral do. (temporary) 173  Recess quarters at Naini Tal.  5 Mirzapur District, North-Western Provinces Professional Establishment (permanent) 21 Cadastral do. (temporary) 233	1	1 1	No. 240	No. 1	14	1,00,000 86,000 5,000
Hanthawaddy District, British Burma	1	1	100	1	12	86,000 5,000
Professional Establishment (permanent) 25 Cadastral do. (temporary) 166 Levelling  Recess quarters at Rangoon.  Meerut District, North-Western Provinces 29  Recess quarters at Mussoorie.  4 Ghazipur District, North-Western Provinces 30 Cadastral do. (temporary) 173  Recess quarters at Naini Tal.  5 Mirzapur District, North-Western Provinces Professional Establishment (permanent) 21 Cadastral do. (temporary) 233	1	1	100	1	12	86,000 5,000
Recess quarters at Mussoorie.  4 Ghazipur District, North-Western Provinces Professional Establishment (permanent) 30 Cadastral do. (temporary) 173  Recess quarters at Naini Tal.  5 Mirzapur District, North-Western Provinces Professional Establishment (permanent) 21 Cadastral do. (temporary) 233	1		200	1	16	55,400
Recess quarters at Mussoorie.  4 Ghazipur District, North-Western Provinces Professional Establishment (permanent) 30 Cadastral do. (temporary) 173  Recess quarters at Naini Tal.  5 Mirzapur District, North-Western Provinces Professional Establishment (permanent) 21 Cadastral do. (temporary) 233	1		200	1	16	55,400
4 Ghazipur District, North-Western Provinces Professional Establishment (permanent) 30 Cadastral do. (temporary) 173  Recess quarters at Naini Tal.  5 Mirzapur District, North-Western Provinces Professional Establishment (permanent) 21 Cadastral do. (temporary) 233					ì	
Professional Establishment (permanent) 30 Cadastral do. (temporary) 173  Recess quarters at Naini Tal.  5 Mirzapur District, North-Western Provinces Professional Establishment (permanent) 21 Cadastral do. (temporary) 233	ļ					
Mirzapur District, North-Western Provinces  Professional Establishment (permanent) 21 Cadastral do. (temporary) 233	1 		140	1	13	60,600 40,000
Professional Establishment (permanent) 21 Cadastral do. (temporary) 233						
Recess quarters at Naini Tal.	2	:::	180 140	1	 16 	67.000 40,000
6 Hooghly River Survey, Bengal 26	1	•••	250	1	13	62,900
Recess quarters at Hazaribagh.			1		. '	

Officers in charg Surveyors and Assi Surveyors.	e, stant	Rank and Grade.		Date of assuming charge.	Rемавка.
" W. S. Buttress " A. J. Gibson " R. Todd	(ir	Depy. Supdt., 2nd grade Surveyor, 3rd grade Ditto, 3rd grade. Ditto, 4th grade. Asst. Surveyor, 1st grade. Ditto, 3rd grade.		Dec. 6, 1879.	Temporarily detached under Settle ment Officer, Punjab.
Ir. F. Grant "H. Dowman "D. A. King "J. McHatton "G. E. Parker "J. Murphy	o, R. E. (iu	Ditto 2nd grade. Surveyor, 2nd grade. Ditto, 4th grade Asst. Surveyor, 1st grade.		Aug. 1, 1881.	Temporarily detached on Akyab Waste Land Grants Survey.
"R. C. D. Ewing "C. W. Wilson	charge)	Surveyor, 3rd grade.  Asst. Surveyor, 1st grade.  Ditto, 1st grade.		Nov. 21, 1881.	
" H. T. Hanby " W. C. Price " S. O. Madras " E. B. M. Drew	charge)	Surveyor, 3rd grade. Ditto, 4th grade. Ditto, 4th grade. Asst. Surveyor, 1st grade. Ditto, 3rd grade. 3rd grade.		Nov. 12, 1873.	
"E. S. P. Atkinson "E. G. Little "T. Shaw "W. D. Corbett	c. (in charge	Surveyor, 1st grade.  Ditto, 3rd grade.  Ditto, 4th grade.  Asst. Surveyor, 1st grade.  Ditto, 1st grade.		Nov. 1, 1871.	
L. LieutCol. E. P. Leach (in charge). Ir. P. A. G. Cowley "J. S. Pemberton "W. J. O'Sullivan "J. S. Swiney "C. S. Kraal "P. C. H. Smart	v. C., B. R	grade. Surveyor, 2nd grade. Ditto, 3rd grade. Ditto, 4th grade. Asst. Surveyor, 1st grade. Ditto, 3rd grade. Ditto, 3rd grade.	Offg. in 1st	Nov. 17, 1881.	Temporarily detached on Sylhe Test Survey.

h. h.		STRENG	TH OF L	OWER SU	BORDINAT	E ESTABL		ine Surve
Number of Party, Revenue Branch.	Where employed.	Sub-Surveyors,	Writers.	Levellers.	Tindals, Measurers, &c.	Hospital Assistant.	Burkundazes.	Annual cost of Party.
7	Tharawaddy District, British Burma  Professional Establishment (permanent) Cadastral do. (temporary)	No.  25 100	No 1	No	No 110 450	No 1	No 13	Rs 87,500 86,000
8	Recess quarters at Rangoon.  Bassein District, British Burma  Professional Establishment (permanent) Cadastral do. (temporary)	30 144			 118 630		17	96,600 86,000
	Recess quarters at Rangoon.							
10	North Deccan and Konkan Districts, Bombay Presidency	17	1		150	1	15	50,900
	Recess quarters at Poons.							
11	South Deccan Districts, Sholapur, Satara, Bombay Presidency.	18	1		150	1	9	50,500
	Recess quarters at Poona.							

of India as it stood on the 1st January 1882,—concluded.

Officers in charge, Surveyors and Assistant Surveyors.	Rank and Grade.	Date of assuming charge.	Remarks.
H. B. Talbot, Esq. (in charge) Mr. W. R. Vyall , G. W. Jarbo , J. R. Scott , E. J. Martin , A. W. Smart , D. J. Collins	Asst. Supdt., 1st grade Surveyor, 4th grade. Asst. Surveyor, 1st grade. Ditto, 1st grade. Ditto, 1st grade. Ditto, 2nd grade. Ditto, 3rd grade.	Nov. 1, 1880.	
Major W. H. Wilkins, s. c. (in charge). Mr. H. R. Littlewood , J. H. O'Donel , R. B. Smart , T. H. Dunne , W. H. Penrose , C. W. J. Ford , W. H. D. Ewing	Depy. Supdt., 3rd grade Surveyor, 3rd grade. Ditto, 4th grade. Asst. Surveyor, 1st grade. Ditto, 1st grade. Ditto, 2nd grade. Ditto, 2nd grade. Ditto, 3rd grade.	Nov. 25, 1881.	
Major H. Lees Smith, s. c. (in charge). Mr. A. M. Lawson " J. Newland " W. M. Kelly " R. R. Dickinson	Asst. Supdt., 1st grade Surveyor, 3rd grade. Asst. Surveyor, 1st grade. Ditto, 2nd grade. Ditto, 2nd grade.	Nov. 13, 1880.	
Major D. C. Andrew, s. c. (in charge) Mr. S. M. Smylio , J. Hickie , G. C. Swiney , G. A. Kuight	Depy. Supdt., 3rd grade Surveyor, 3rd grade. Asst. Surveyor, 1st grade. Ditto, 1st grade. Ditto, 3rd grade.	Dec. 24, 1880.	,

## Classified List of Officers of the Mysore Revenue

No. of Officers in each grade.	1	Names.		Substantive Appointmen	t.	Duty in which at present employed.	
1	2 3		4				
1 2	Major J. P. Grant Mr. E. H. Butcher  1st Major J. Rutherfurd	  Grade.	  	Superintendent Assistant Settlement Officer Assistant Superintendent		Superintendent Assistant Superintendent	
2 3 4 5 6 7	" G. Mackenzie Captain J. B. Lawrence " R. L. Price Mr. J. P. Barker " F. B. Clerk* " W. E. Waite		 	Ditto Ditto Ditto Ditto Ditto Ditto Ditto Ditto Ditto		Offg. Deputy Superintendent Assistant Superintendent Ditto Ditto Ditto Ditto Ditto Ditto Ditto	
1 2 3	2nd Major D. Cowie Mr. W. E. A. James Captain A. McCally	* Grade.   	  	Assistant Superintendent Ditto Ditto	•••	Assistant Superintendent Ditto Ditto	
1 2	3rd Mr. A. G. Hudson ,, E. W. Luseron	Grade.  	 	Assistant Superintendent Ditto	•••	Assistant Superintendent Ditto	

## General List of Officers of the Mysore Revenue

1	2	3	4.	5	6	7
Genl. Seniority Number.	Passed in the Vernacular.		Age.	Age. Rank.		Salary.
1 2 3 4 5 6 7 8 9 10 11 12 13 14	Major G. Mackenzie Mr. A. G. Hudson ,, E. W. Laseron	Marathi and Guzerathi.	Y. M. D.  43 9 0 39 11 22 45 6 2 34 3 16 39 6 25 37 4 13 40 2 3 41 0 15 38 1 24 39 0 20 40 5 28 23 8 2 37 8 7 35 11 5	Superintendent Assistant Superintendent Assistant Settlement Officer Assistant Superintendent Ditto	1st grade Ditto Ditto Ditto 2nd grade 1st grade Ditto 2nd grade Ditto 1st grade Ditto 3rd grade Ditto 3rd grade Ditto	Rs. As. P 1,340 14 0 860 0 0 760 0 0 660 0 0 660 0 0 660 0 0 560 0 0 560 0 0 660 0 0 660 0 0 660 0 0 660 0 0 660 0 0 660 0 0 660 0 0 660 0 0

# \* Applies only to officers who are under Note.—In this list the officers have been arranged according to their length of service in the Department, the officer who has been of service counting for pension (column 11).

## Survey Department on the 1st January 1882.

SA	ALARIES, INCL	UDING ALLOWAN	CES,				
To	MILITARY OFFIC	ERS.	To CIVILIANS.	Remarks.			
Military Pay and Allowances.	Staff Pay.	Aggregate Pay and Allowances.	Civil Consolidate Salary.				
5	6	7	8	9			
		Rs. As. P.	Rs. As. I				
	******	1,565 14 0 	895 O				
		995 0 0 795 0 0 795 0 0 795 0 0 	795 0 795 0	* Promoted to 1st grade vide G. O. India Notification dated 1st	Jaly 188		
		695 0 0  695 0 0	695 O	Returned to duty on the 1st July 1891. On furlough to Europe from 13th February 1891. Has been recommended for promotion to 1st grade from 10th ber 1881.	Noven		
 			560 O 560 O				

## Survey Department on the 1st January 1882.

8	9	10	11	
Date of first appointment to the Department.	Date of appointment to present grade.	* Period of service counting for pension.	Present post.	Remares.
Nov. 1, 1863 Jan. 25, 1866 Oct. 2, 1866 Dec. 22, 1866 Dec. 1, 1867 Jan. 16, 1868 Jan. 15, 1866 Dec. 3, 1870 Jan. 18, 1872 Nov. 1, 1872 Nov. 23, 1876 Mar. 22, 1877 June 8, 1881	July 1, 1873 Mar. 26, 1876 Dec. 5, 1878 June 8, 1876 Nov. 26, 1880 Mar. 10, 1876 Dec. 2, 1874 May 1, 1878 Aug. 25, 1878 Dec. 24, 1871 Jan. 1, 1878 Nov. 1, 1878	Y. M. D.   16 2 29 12 3 2 12 7 9 13 11 15 1 8 2 12 8 0 13 11 5	Superintendent. Officiating Deputy Superintendent. Assistant Superintendent. Ditto. Ditto Ditto.	On furlough to Europe. On leave on medical certificato to Europe.

the Uncovenanted Civil Service Rules.

longest in the Department standing first on the list. Their dates of first appointment to the Department (column 9), and period have been arranged in consecutive order.

# Disposition List of Officers of the Mysore Revenue

rty.						STRENG	TH OF SU	BORDINAT Gra	E ESTADL	ISIIMENTS	IN ALL	
Number of Party.		Where em	ployed.			Sub-Surveyors.	English Clerks.	Karkuns.	Learners.	Mappers.	Peons.	Annual cost of Party from 1st Jan. 1881 to 31st Dec. 1881.
1		2				3	4	5	6	7	8	9
		_			_	No.	No.	No.	No.	No.	No.	Rs.
;		••••				<b>.</b>			l		1	1
1 2	Mysore Province Ditto	•••		•••		4	· 2	59	12	28	9	3,494 45,004
_	Ditto	•••	•••	•••	•••		2	9			4	21,021
				TOTAL	•••	4	4	68	12	28	13	69,519
1 2 3 4 5 6 7	Kolar District Hassan ditto Bangalore ditto Kolar ditto Ditto ditto Ditto ditto Mysore ditto	easuring Est	ablishment	      		29 28 28 26 30 27 27 195		3 3 2 2 2 2 2 2 3 3 77	6 6 4 6 6 7 8		2 2 2 2 2 2 2 2 2 2	18,566 18,887 17,704 17,064 22,642 7,626 15,604 1,18,993
ļ	Cl	lassing Esta	blishments.									
1	Hassan District					14		1	6			11.001
2	Ditto ditto			••• •••		14		i	6		$\begin{bmatrix} 2 \\ 2 \end{bmatrix}$	11,001 16,469
3	Kolar ditto					16	<u></u>	1	4		2	15,902
				TOTAL	•••	44		3	16		6	43,372
12			GRANI	о Тотаь		243	4	88	71	28	33	2,30,984

## Survey Department as it stood on the 1st January 1882.

Officer in charge.	Number in General List.	Rank and Grade.	Date of assuming charge.	REMARKS.
10	11	12	13	14
The Hon'ble Col. W. C. Anderson Major J. P. Grant , J. Rutherfurd	 1 2	Survey and Settlement Commissioner Superintendent Offg. Deputy Superintendent	Jan. 15, 1868 July 8, 1877	Appointment abolished from 1st April 1891 consequently the cost shewn in column 6 is only for three months.
Mr. J. P. Barker A  "W. E. Waite B  "F. B. Clerk D  Captain A. McCally F  Major D. Cowie G  Mr. E. W. Laseron H  "A. G. Hudson L	4 14 6 9 8 13 12	Assistant Superintendent, 1st grade Ditto, 1st do Ditto, 2nd do Ditto, 2nd do Ditto, 3rd do Ditto, 3rd do Ditto, 3rd do	Aug. 18, 1878 July 1, 1881 Nov. 26, 1869 May 2, 1878 Aug. 1, 1881 Nov. 1, 1878 Jan. 1, 1878	Cost shewn is only for seven months.
Major G. Mackenzie C Mr. E. H. Butcher E Captain R. L. Price M	11 3	Assistant Superintendent, 1st grade Assistant Settlement Officer and Assistant Superintendent, 1st grade. Assistant Superintendent, 1st grade	Aug. 1, 1881 Jan. 26, 1867 Nov. 1, 1879	

# Classified List of the Officers of the Geological Survey of India on the 1st January 1882.

No. of Officers in each grade.	Names.		Substantive Appointment.	Duty on which at	present engag	ed.
1	H. B. Medlicott, A. M., F. R. S., F. G. S.  1st Grade—Rs. 700 rising to Rs. 1,000.		Superintendent, Geological Survey	Office		:
1 2 3 4	W. T. Blanford, A. R. S. M., F. R. S., F. G. S. William King, A. B	•••	Senior Depy. Supdt., Geol. Survey Deputy Superintendent, Geol. Survey Ditto ditto ditto Assistant, Geological Survey	N. W. Frontier. On furlough Tinnevelly On sick leave		: : :
1 2 3 4 5	F. R. Mallet, F. G. S		Assistant, Geological Survey Ditto ditto Ditto ditto Ditto ditto Ditto ditto Ditto ditto	Office South Rewah Kattywar Rajputana N. W. Himalaya		100 100 100 100
1 2 3 4 5 6	C. L. Griesbach, F. G. S		Assistant, Geological Survey Ditto ditto Ditto ditto Ditto ditto	On privilege leave Manipur Nimar Garo Hills		111 111 111
	Separately graded.  O. Feistmantel, M. D	•••	Palæontologist, Geological Survey	Office		
1 2 3 4	Non-graded Officers.  J. Schaumburg W. R. Bion Kishen Singh Hira Lal		Artist Registrar Sub-Assistant, Geological Survey Ditto ditto ditto	Office Ditto Gwalior South Rewah	  	

## General List of the Officers of the Geological

2 3 4	H. B. Medlicott, A. M., F. R. S., F. G. S. W. T. Blanford, A. R. S. M., F. R. S., F. G. S. William King, A. B		Y. M. D. 52 4 29 49 2 25 48 5 16 47 3 9	Supdt., Geological Survey Senior Depy. Supdt., Geol. Sur. Depy. Supdt., Geological Survey	Separately graded. 1st grade	Rs. 1,800 *1.400
2 3 4	V. T. Blanford, A. R. S. M., F. B. S., F. G. S. William King, A. B	1	49 2 25 48 5 16	Senior Depy. Supdt., Geol. Sur.	graded.	
3 1	William King, A. B		48 5 16			* 1.400
3 1	William King, A. B		48 5 16			1,400
4 1	R. B. Foote, F. G. S				Ditto	1,100
5 ]	P R Mollet F G B		47 3 9	Ditto ditto	Ditto	1,100
		Oct. 5, 1868	40 10 19	Assistant, Geological Survey	2nd grade	700
6 1	F. Fedden, A. B. S. M., F. G. S	Oct. 26, 1869	42 9 10	Ditto ditto	Ditto	700
	C. A. Hacket	Oct. 5, 1868	48 5 20	Ditto ditto	Ditto	700 700
	r. W. H. Hughes, A. R. S. M., F. G. S	Aug. 3, 1868	38 4 30	Ditto ditto	Ditto	1,000
	A. B Wynne, F. G. S	Nov. 9, 1868	46 2 17	Ditto ditto	1st grade	650
	R. Lydekker, A. B	Apl. 5, 1875	32 5 7	Ditto ditto	2nd grade	700
11	D. Feistmantel, M. D	Oct. 4, 1875	33 1 10	Palæontologist ditto	Separately    graded.	
12 0	C. L. Griesbach, F. G. S	Sept. 15, 1880	34 0 21	Assistant, Geological Survey	3rd grade	440
	3. D. Oldham, A. B. S. M	Aug. 1, 1881	23 5 2	Ditto ditto	Ditto	380
	P. N. Bose, B. Sc., F. G. S	Not required to	26 7 20	Ditto ditto	Ditto	380
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15	f. H. D. LaTouche, A. B		26 2 2	Ditto ditto	Ditto	350
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17	Vacant.				}	
	Non-graded Officers.				ĺ	
1	J. Schaumburg		42 5 30	Artist, Geological Survey	No grade	400
	W. R. Bion		29 6 15	Registrar ditto	Ditto	300 170
	Kishen Singh		31 10 6	Sub-Assistant ditto	Ditto	170
	Hira Lal		30 5 2	Ditto ditto	Ditto	170

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	Pay			Travelling Horse Allowand		ı	Total Pay Allowar		d	REMARKS.
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	440 380 380 350	0	0	130 130 130 130	0	0	570 510 510 480	0	0	Acting in 2nd grade, vice Mr. F. R. Mallet.
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## Survey of India on the 1st January 1882.

Date of first appointment to the Department.  Department.  Date of appointment present grade or rank.		Present post.	Кемавка.
Mar. 24, 1854 Oct. 1, 1855 Mar. 4, 1857 Sept. 28, 1858 Feb. 12, 1859 Nov. 16, 1861 Nov. 13, 1862 Nov. 13, 1862 Nov. 14, 1878 Mar. 25, 1875 Dec. 17, 1879 July 30, 1880 Nov. 29, 1881 Nov. 29, 1881 Nov. 29, 1881 Apl. 12, 1869 Dec. 12, 1879 Dec. 31, 186	3 24 9 10 5 24 9 28 1 22 3 13 2 22 7 19 8 20 6 16 6 1 20 1 16 5 15 9 28 1 1 4 8 27 7 6 9 7 8 3 1 20 9 2 0 15 0 1 5 2 1 0 1 2 4 12 8 19 8 6 9 0	Manipur. Nimar.  Garo Hills.  Office. Ditto.	• Special personal pay.
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# Disposition List of the Officers of the Geological

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			No. in General List.						ST	REN L	GTH ISHM	OF SI	BORI F AL	INATE GRAD	ESTAR
Names of Officers.	Where employs	ed.	ener	Rank s	nd Grade.		ate of fi pining t		1.	$\top$		. T		Offic	ce Estab
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H. B. Medlicott, A.M., F.R.S.	Office	•••	1	Sundt	Geologica	l Ma	r. 24, ]	1054		١.	.	_   .			
F. G. S. 1st Grade.		•••	-	Survey		ı mı	r. 24, j	1894	2	4	۱ ا	5 4	4.	12	2 20
W. T. Blanford, A. R. S. M.			l _												
F. B. S., F. G. S.	N. W. Frontier	•••	2	Senior D	epy. Supdt. ical Survey	, Oct	. 1, 1	1855	J.		.	.			
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William King, A.B	· On furlough	•••	3	Depy. S	updt., Geo	. Mar	. 4, 1	1857				.			
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2nd Grade.					•									ł	'
F. R. Mallet, F.G.s	Office		5	Ditte	·	Feb.	12, 1	859	h	<b> </b>		1			
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T. W. H. Hughes, A.R.S.M.,	South Rewah		8	Ditto		NT		040	<u>"</u>						1
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R. Lydekker, A. B	N. W. Himalaya		10	D:44		37	90.14	ا . ـ ـ	[						
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C. L. Griesbach, F. G. S	On privilege leave	• • • •	12	Ditto	•••	Nov.	11, 18	378	]						
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R. D. Oldham, A.R.S.M	Manipur		13	Ditto	•••	Dec.	17, 16	379	officers.			١			
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T. H. D. LaTouche, A. B.	Garo Hills		1.	TO:		N	00.10	,,	7			ļi			
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Kishen Singh	Gwalior		3	Sub-Asst., Survey.	Geological	Jan.	7, 187	74	-E			}		···	
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Hira Lal	South Rewah		4	Ditto	•••	Jan.	7, 187	74		,					
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Whore o	employed during last three years.	Annual cost (salary and transt their subordinates, if any)						REMABI	<b>τ</b> θ.
1878-79.	Office	Salary and allowance		Rs. A			P.		
1879-80.	Ditto Nahun and Office.	Travelling do.	•••	266 10					
1879-80.	Office and furlough Furlough. Ditto, Bologna Congress and N. W Frontier.	On furlough.				24,266 10			
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879-80.	Trichinopoly, Madura & furlo'. Furlough	lm 'ny 1		4,118 13 465 8			ľ		
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Jyddekker, R	Geological Survey		***	•••	46	48	
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Macdonald, LtCol. Dona	ld Survey of India	•••			2	18	39
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Mackenzie, Major G.	Ditto	•••	•••		42	45	
Madras, S. O	Survey of India		•••	•••	10	24	39
Mallet, F. R	Geological Survey			•••	46	48	
Martin, E. J	Survey of India		,	•••	10	24	41
Martin, Capt. Gerald W.	Ditto	•••	•••		4	18	
May, J. A	Ditto		***		6	24	•••
McA. Fee, C. H.	Ditto	•••		•••	8	24	31
McCally, Capt. A.	Mysore Survey	•••			42	45	
McCarthy, J. F.	Survey of India			•••	12	24	•••
McCay J	Ditto			•••	12	24	37
McCullagh, Capt. J. R.	Ditto	•••	***		4	18	39
McGill, G. A	Ditto		•••	•••	6	24	37
McGill J	Ditto	***	•••		4	18	
McHatton, J	Ditto	•••	•••	•••	10	24	39
McNair, W. W.	Ditto		•••		10	24	37
Medlicott, H. B.	Geological Survey		,	•••	46	48	
Murphy, J	Survey of India				12	24	39
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Neuville, C. J	Survey of India	***	***	•••	6	24	•••
Newland, J	Ditto	***	•••	•••	10	26	41
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Norman, S. F	Ditto	•••	•••	•••	12	26	31
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O'Donel, J. H	Survey of India				8	26	41
Ogle, M. J	Ditto	•••		•••	8		
Oldham, R. D.	Geological Survey	•••	•••	•••	46		
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Parker, G. E	Survey of India		•••		12	26	39
Patterson, W. H.	Ditto		•••		6	26	3
Pemberton, J. S.	Ditto	•••		•••	6		
Penrose, W. H.	Ditto			•••	12		
Peters, P. A	Ditto		•••		12		
Peychers, H	Ditto				8	9 20	
Peyton, J	Ditto		•••		$\epsilon$		
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Wynne, A. B.

Woodthorpe, Bt. Lt.-Col. R. G. ...

Wyatt, A. G. ... ...

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### Statements of the Services of Officers in the Survey of India.

#### Corrected up to 1st January 1882.

LIEUTENANT-GENERAL J. T. WALKER, c. B., F. R. S., &c., &c., Royal (late Bombay) Engineers, Surveyor General of India,

Joined the Honourable East India Company's Military Academy at Addiscombe, February 1843; obtained commission as 2nd Lieutenant, 9th December 1844; served at Chatham during 1845; landed in India, 10th May 1846; employed four months at Bombay as Assistant Chief Engineer; leave of absence to Madras for six months from 16th September 1846; Executive Engineer, Upper Sind, May 1847 to October 1848; war services, 1849 to 1853; Lieutenant, 2nd July 1853; appointed 2nd Assistant, Great Trigonometrical Survey of India, 1st December 1853; 1st Assistant, Great Trigonometrical Survey of India, 24th March 1854; Captain, 4th December 1857; conducting trigonometrical operations in the Punjab and Upper Sind, 1854 to 1861; Brevet-Major, 19th January 1858; appointed Superintendent, Great Trigonometrical Survey of India, 12th March 1861; leave of absence to Europe on furlough from 10th November 1863 to 29th January 1865; Lieutenant-Colonel, 27th February 1864; Officiating Surveyor General of India, in addition to his duties as Superintendent, Great Trigonometrical Survey, from 22nd April 1865 to 12th December 1866 and from 12th May 1868 to 7th January 1869, and again from 9th May 1874 to 4th August 1874; Brevet-Colonel, 27th February 1869; furlough to Europe from 10th December 1870 to 31st October 1872, including six months on duty; Regimental Colonel, 11th December 1873; furlough to Europe from 17th April 1876 to 4th January 1877; Companion of the Bath, 2nd June 1877; appointed Surveyor General with direct superintendence over the Great Trigonometrical and the Topographical Surveys, 1st January 1878; Major-General, 1st January 1879; Lieutenant-General, 10th May 1881.

#### WAR SERVICES.

Served throughout the Punjab Campaign of 1848-49 as Field Engineer, and was present at the siege and surrender of Mooltan, the battle of Goojerat, and the subsequent pursuit of the Sikhs and Afghans (medal with two clasps); for five years (1849-1853) was employed in making a military survey of the Northern Trans-Indus Frontier, from Peshawur down to Dera Ismnil Khan, during which he served as Field Engineer in many of the encounters with the hill tribes on the frontier; at the attacks of Suggow, Pulli, and Yormundi under Colonel Bradshaw; in the affair of the Kohat Pass under Sir Charles Napier; in the actions at Prangzai, Nowadund, Shahkote, and Ranezai under Sir Colin Campbell; the attack of Roree under Colonel Boileau; and subsequently, in 1860, in the expedition against the Mahsood Wuzeerees, under Sir Neville Chamberlain (medal with clasp); in 1857, during the mutiny of the Bengal Army, he was at first attached to the staff of Brigadier-General Neville Chamberlain, when that officer was commanding the Punjab moveable column, and subsequently accompanied him to Delhi, where he was also employed during the siege as Field Engineer, and was severely wounded (Brevet of Major, medal with clasp).

### LIEUTENANT-COLONEL JAMES SCONCE, Bengal Staff Corps, Deputy Surveyor General.

Joined the Honourable East India Company's Military Academy at Addiscombe, February 1852; date of first commission as 2nd Lieutenant, Bengal Artillery, 9th December 1853; landed in India, 2nd April 1854; promoted to 1st Lieutenant, 23rd September 1857; appointed to Bengal Horse Artillery, 11th February 1858; appointed Adjutant, 4th Battalion, Bengal Artillery, 15th July 1859; appointed Assistant Revenue Surveyor in the Bundelcund Revenue Survey, 21st October 1859; transferred to the Royal Artillery, May 1861; appointed to the charge of 1st Division, Central Provinces Revenue Survey at Jubblupore, 27th June 1862; promoted to Revenue Surveyor (now Deputy Superintendent of Survey), 3rd grade, 21th January 1863; promoted to 2nd Captain, Royal Artillery, 3rd April 1863; transferred to the charge of 3rd Division, Central Provinces Revenue Survey at Saugor, 13th November 1863; proceeded on furlough to Europe on sick certificate, 25th July 1864; returned from furlough and appointed to do duty in the Office of Superintendent, Revenue Surveys, Calcutta, 16th March 1866; appointed to the charge of 6th Division, Lower Provinces Revenue Survey at Hazaribagh, 3rd November 1866; promoted to Deputy Superintendent of Survey, 2nd grade, 6th November 1863; transferred as Captain to Bengal Staff Corps, 8th March 1869; proceeded on furlough to Europe, 28th March 1872; returned from furlough and appointed to do duty in the Office of Superintendent of Revenue Surveys, Calcutta, 5th November 1873; appointed to the charge of the 3rd Division, Lower Provinces Revenue Surveys at Midnapur, 6th December 1873; transferred to the charge of the 8th Division, Revenue Survey (Western Soane Irrigation) at Arrah, 16th March 1876; promoted to Major, Bengal Staff Corps, 11th October 1876; appointed Deputy Surveyor General, 1st January 1879; promoted to Lieutenant-Colonel, Bengal Staff Corps, 9th December 1879.

### WAR SERVICES.

Served with the 1st Battalion, Bengal Artillery, and No. 17, Light Field Battery, at the siege and capture of Delhi in September 1857; in action with the rebels at Bulundshuhr in October 1857; in action with the rebels at Agra, 10th October 1867; served during the operations leading to the relief of Lucknow by the Army under Sir Colin Campbell in October and November 1857; in action with the rebels at Cawnpore on 5th November 1857; in action with the rebels at Shunshabad, near Futtegarh, in January 1858; at Alumbagh during the capture of Lucknow in March 1858; has received a mutiny medal with classs for "Delhi," "Relief of Lucknow," "Capture of Lucknow."

JOHN BABONEAU NICKTERLIEN HENNESSEY, M. A. (Cantab), F. B. S., &c., &c., Deputy Superintendent, 1st grade.

#### Junior Branch.

APRIL 14th, 1844, appointed 3rd class Sub-Assistant and posted to Karara Series, with which did duty, chiefly in Oudh, till 1845-46, when transferred to Chendwar Series and shared in operations through Tirhoot, Chumparun, &c., to confines of Gorakhpur; continuing with latter party, in 1846-47, employed in Gorakhpur Terai, where suffered severely from jungle fever; April 14th, 1847, promoted to 2nd class; 1847-48, present at Sonakhoda Base Line and held charge of a microscope; 1848-49, conducted approximate series, secondary triaugulation and ray clearing on North-East Longitudinal Series through Gorakhpur and Oudh Terais, where again suffered severely from jungle fever, and was in consequence unable to take the field in ensuing season; April 15th, 1850, promoted to 1st class; in 1850-51 proceeded with 2nd Hill Series Party into the Punjab, and carried Secondary Series from Dala along Ravi River to Lahore, and thence across Bari Doab to Beas River, by means of which and other series he fixed the positions of Lahore, Amritsar, Tarn Taran, Wazirabad, Guzerat, &c.; 1851-53, attached to Superintendent's Field Office, and employed under the Astronomical Assistant at head quarters and elsewhere in bringing up various computations, acting as recorder of the latitude observations, conducting meteorological observations, &c., until October 1853, when on Captain Renny Tailyour's retirement was placed in charge of the Branch Computing Office with the Surveyor General; 1853-54, present at Chach Base Line, where acted as Assistant to the Surveyor General during the preliminary arrangements, and subsequently held charge of a microscope and conducted the meteorological observations.

#### Senior Branch.

April 25th, 1854, promoted to Senior Branch and appointed 2nd Assistant; November 29th, 1855, promoted to Rs. 400; September 4th, 1858, to 1st Assistant; continued in charge of the Branch Computing Office and was employed in reducing the measurements of Chach and Karachi Base Lines, preparing in manuscript triplicate the employed in reducing the measurements of Chach and Karachi Base Lines, preparing in manuscript triplicate the general report of the North-East Longitudinal Series, assisting in various professional investigations, examining candidates for the Department, &c.; September 1st, 1862, placed in charge of the Extra Party Base Line operations and proceeded with the apparatus under the orders of the Superintendent to Vizagapatam, where he assisted in the measurement of the Base Line; March 25th, 1863, to April 10th, 1865, absent on sick leave to Europe; during these two years he entered Jesus College, Cambridge University, as a Fellow Commoner and worked through a course of mathematical studies under William Walton, Esq., M. A., and Reverend Percival Frost, M. A., Moderators and Examiners, and Reverend J. Challis, M. A., and J. C. Adams, Esq., M. A., respectively, Plumian and Lucasian Professors, whose certificates were received with much satisfaction by the Secretary of State for India, and eleited the approbation of the Government of India: he also proceeded to the Ordnance Survey Office. Southamnton And Examiners, and Reverend J. Challis, M. A., and J. C. Adams, Esq., M. A., respectively, Pluman and Lucasian Professors, whose certificates were received with much satisfaction by the Secretary of State for India, and elicited the approbation of the Government of India; he also proceeded to the Ordnance Survey Office, Southampton, and there studied the process of photozincography under direction from the Secretary of State, with whose sanction he subsequently selected the necessary apparatus and materials for introducing the process into the Great Trigonometrical Survey; also, with the support of the Secretary of State, visited certain field divisions of the Ordnance Survey in England, Scotland and Ireland in order to acquire a knowledge of their operations; he returned to India with the pendulum apparatus under his care; meanwhile, on 9th December 1863, he was specially promoted to Rs. 868; May 4th, 1865, appointed to charge of amalgamated Computing Office, now designated Head Quarters Offices, and consisting of a Calculating Branch, with small auxiliary branches for Drawing. Printing and Photozincographing, Instrument Depôt, &c., &c., and has continued to act in this capacity with exceptions hereafter noted; 1865-66, on arrival of the photozincographing apparatus from England, established the process in the Dehra Dun Office, and subsequently instructed (besides others) Captains Melville and Waterhouse in order to promote its introduction into the Surveyor General's Office, Calcutta; April 1st, 1866, on re-organization of the Department, was graded as Surveyor, 1st grade, on Rs 1,100; 1866 and subsequently, besides ordinary duties, took a principal share in all the comparisons of standards; also determined the expansion of the Great Trigonometrical Survey, 10-feet Standard Bar; December 1868 to April 1869, directed and shared in the measurement of the Bangalore Base Line; September 1st, 1874, on consolidation of salaries placed on Rs. 1,300; December 9th, 1874, observed the transit of Venus across the Sun's maximum of grade (Rs. 1,600).

COLONEL FREDERICK CORTLANDT ANDERSON, Bengal Staff Corps, Deputy Superintendent, 1st grade.

Joined the service as Ensign on the 13th December 1845; promoted to Lieutenant, 18th March 1850; Brevet-Captain, 13th December 1860; Captain on 18th February 1861; date of appointment to Staff Corps, 18th February 1861; Major on 13th December 1865; Lieutenant-Colonel on 13th December 1871; Brevet-Colonel on 13th December 1876. Posted to do duty with and joined the 16th Grenadiers forming part of the Army of the Sutlej; afterwards attached to 69th Native Infantry till permanently appointed to 71st Native Infantry, 8th August 1846; appointed Interpreter and Quarter Master, 34th Native Infantry, 17th July 1849, and did the duties until an officer of the 34th passed the Interpreter's examination in 1851; made a survey of the Fort of Michnes and its environs for three miles round by desire of Sir Henry Lawrence and Captain (Lord) Napier; appointed to the charge of Sapper and Miner Company and the building of the Fort of Abuzai in 1852; appointed Revenue Surveyor on 10th September 1852, and posted to Bari Doab Survey; transferred as Assistant to Sind-Saugor Doab Survey in February 1856; took officiating charge of this party on 5th December 1856; took charge of Bari Doab survey party in November 1857; resumed charge of Sind-Saugor Doab survey party on Major Shortrede's promotion, 28th January 1858; appointed one of the two British Commissioners for the settlement of boundary between Outh and territory ceded to Nepal in January 1860 in addition to his own duties; received thanks of Government and Rs. 300 a month deputation allowance for this work; granted six months' leave from 29th April to 15th October 1848; recalled in consequence of declaration of 2nd Sikh War, and rejoined 71st Native Infantry on 24th May 1848. JOINED the service as Ensign on the 13th December 1845; promoted to Lieutenant, 18th March 1850;

### WAR SERVICES

Served with 16th Grenadiers till commencement of 1st Sutlej Campaign; served with 71st Native Infantry, holding right bank of Beas; marched in charge of siege train for Lord Gough's Army; took part in various

skirmishes against Bede Bekram and Ram Singh for protection of North Jullundur Doab in 1848-49; took part in skirmishes with hill tribes in the neighbourhood of Michnee under Sir Colin Campbell, and in the Eusufzai Valley under Major Lumsden in 1851-52; served during Indian Mutiny of 1857-58—medal.

### BREVET-COLONEL GEORGE CHARLES DEPRÉE, Deputy Superintendent, 1st grade.

Joined the late Honourable East India Company's Seminary at Addiscombe in February 1848; appointed 2nd Lieutenant of the Bengal Artillery on 9th December 1850; arrived in India, 18th June 1851, and joined the Artillery at Dum-Dum; leave on private affairs from 28th June to 15th November 1851, proceeded in December 1851 with the 6th Company, 9th Batallion Artillery, on service Arrakan with the Pegu Field Force; surveyed on a large scale the station of Kyouk-Physo for the use of the Officer Commanding; ordered to ex-December 1851 with the 6th Company, 9th Batallion Artillery, on service to Arrakan with the Pegu Field Force; surveyed on a large scale the station of Kyouk-Phyoo for the use of the Officer Commanding; ordered to examine and report upon the Tonghoop Pass between Arrakan and Burma as to its practicability for the passage of 150 elephants required by the force in Pegu, for which duty received letter of thanks by order of His Excellency the Governor General, Lord Dalhousie; appointed Assistant Executive Officer, Chittagong and Arrakan Road, 30th November 1853; sick leave in India from 17th June to 5th December 1854; appointed Assistant Surveyor, Ganjam Topographical Survey, 20th October 1854; employed on the survey of the Cuttack Tributary Mehals, 12th March 1856; 1st Lieutenant on the 21st January 1856; appointed to the charge of the Ganjam Topographical Survey in March 1856, at the same time ex-afficio Assistant Commissioner, Cuttack Division, 13th September 1856; organised No. 2 Ganjam Topographical Party in 1857; transferred from No. 1 to No. 2 Ganjam Topographical Party in 1858; owing to the mutiny in 1858; employed in running a series of triangles to define the coast line of the Bay of Bengal; 2nd Captain, 27th August 1858; leave on medical certificate to Europe, 10th January 1859 to 2nd April 1860; completed the survey of Cuttack and commenced that of the Chota Nagpur Division, the designation of No. 2 Ganjam being changed to No. 4 Topographical Party, Chota Nagpur Division Survey; appointed ex-afficio Assistant Commissioner, Chota Nagpur Division, during a long period decided many boundary disputes between the estates of the Rajabs of the Tributary Mehals; joined the Staff Corps, 19th February 1861; appointed Deputy Superintendent, 1st grade, Topographical Survey, on 20th October 1866; Major, 28th June 1868; furlough to Europe on private affairs from 5th December 1868 to 8th December 1870; employed on the survey of a part of the Central Provinces and Rewah; appointed ex-afficio Assistant Commissioner, Cent furlough to Europe for one year from 9th December 1881.

#### WAR SERVICES.

Served with the Pegu Field Force in 1852-53-medal.

### MAJOR H. R. THUILLIER, Royal Engineers (Bengal), Deputy Superintendent, 1st grade.

Service at Addiscombe from 1st August 1855 to 11th June 1857; date of first commission as 2nd Lieutenant, 12th June 1857; promoted to 1st Lieutenant, 27th August 1858; date of arrival in India, 29th April 1859, but service in India commenced from 16th October 1857; appointed to the Survey Department as 2nd Assistant in the Great Trigonometrical Survey, 21st May 1859; promoted to 1st Assistant, 1st February 1861; designation changed to Surveyor, 3rd grade, 1st April 1866; promoted to 2nd grade, 1st October 1867; designation changed to Deputy Superintendent, 2nd grade, 1st September 1869; promoted to Captain, 10th November 1869; furlough to Europe on private affairs, 14th March 1871; promoted to Deputy Superintendent, 1st grade, 1st Saylough to Europe on India from furlough, 9th March 1873; graded as Deputy Superintendent, 2nd grade, under the re-organization of 1874, 1st April 1874; acting Deputy Superintendent, 1st grade, from 1st April 1874 to 3rd April 1876; officiated as Superintendent, Great Trigonometrical Survey, from 4th April 1876 to 31st October 1876; promoted to Major, 7th October 1876; acting Deputy Superintendent, 1st grade, from 1st November 1876 to 1st January 1878; promoted to Deputy Superintendent, 1st grade, from 1st November 1876 to 1st January 1878; promoted to Deputy Superintendent, 1st grade, from 1st November 1878; furlough to Europe for two years from 17th November 1879.

### COLONEL CHARLES THOMAS HAIG, Royal Engineers (Bombay), Deputy Superintendent, 2nd grade.

OBTAINED his first commission from the Honourable East India Company's Military College at Addiscombe OBTAINED his first commission from the Honourable East India Company's Military College at Addiscombe on 8th June 1854; Lieutenant, 24th May 1856; arrived at Bombay, 5th July 1856; commanded a Company of the Bombay Snppers and Miners with the Persian Expeditionary Force, 1856-57; returned to India, October 1857; started same month in independent command of a Company of the Bombay Sappers and Miners to join the Kajputana Field Force, with which he was afterwards appointed Staff Officer of Engineers; in May 1858 was appointed Assistant Executive Engineer at Neemuch; 22nd September 1859, appointed 2nd Assistant in the Great Trigonometrical Survey of India, in which Department he has remained up to date; joined at Rajkot, 15th October 1859, but proceeded at once to join the Okhamandat Field Force; after the taking of Dwarka, employed in the Survey in Cutch and Kattywar till May 1860; then proceeded to Murreo in the Punjab; returned to Kattywar in October 1860; promoted to 1st Assistant, 1st February 1861; variously employed in the Survey Department in Kattywar, Guzerat, Meywar, Malwa, the Deccan, and Kanara, until the present time, with the exception of three in October 1860; promoted to 1st Assistant, 1st February 1861; variously employed in the Survey Department in Kattywar, Guzerat, Meywar, Malwa, the Decean, and Kanara, until the present time, with the exception of three breaks by furlough to Europe, viz., from 14th April 1865 to 13th October 1865, from 30th September 1869 to 22nd September 1871, and from 31st March 1877 to 3rd October 1878; promoted to 1st Assistant, Great Trigonometrical Survey, 1st February 1861; Captain, 12th April 1862; Deputy Superintendent, 2nd grade, 1st October 1867; Major, 5th July 1872; Lieutenant-Colonel, 23rd January 1877; Officiating Deputy Superintendent, 1st grade, 1st November 1879; on deputation as Commissioner, Venice Geographical Exhibition; promoted to Colonel, 1st July 1881; resumed charge of the Guzerat Party on 27th October 1881.

### WAR SERVICES.

Served with Persian Expeditionary Force, 1856-57; present at the battle of Khushab and at the taking of Mohamera—medal and clasp; served with the Rajputana Field Force, 1857-58; present at the siege and assault of Kotah—medal and clasp; served with the Okhamandal Field Force, 1859; present at the siege of Dwarka.

MAJOR J. HERSCHEL, Royal Engineers (Bengal), F. B. S., &c., Deputy Superintendent, 2nd grade.

Joined at Addiscombe, February 1855; public examination, 12th December 1856; first commission, Ensign, Royal Engineers, 12th December 1856; Lieutenant, 27th August 1858; landed at Calcutta, 2nd January 1859; Second Assistant, Great Trigonometrical Survey, 3rd November 1859; First Assistant, 1st February 1861; sick leave to England, 20 months, 23rd April 1866; Surveyor, 3rd grade, 1st April 1866; Surveyor, 2nd grade, 1st October 1867; returned to duty, 8th December 1867; Second Captain, 10th November 1869; Officiating Surveyor, 1st grade, 1st April 1871; reverted to substantive appointment, 31st October 1872; furlough to England two years, 22nd August 1873; designation changed to Deputy Superintendent, 2nd grade, 1st April 1874; returned to India. 18th August 1875; Major, 10th March 1876; on special duty in England from 17th November 1879.

### MB. ROBERT BROUGHTON SMART, Deputy Superintendent, 2nd grade.

Was first appointed in the Survey Department on the 21st of September 1846 on Rs. 80 per mensem in the Monghyr and Bhagalpur Revenue Survey under Lieutenant W. S. Sherwill, Revenue Surveyor; on the 1st January 1848 promoted to Rs. 125 per mensem; sick leave from 2nd May to 30th June 1848, and again from 26th October 1848 to 20th January 1849; promoted to Rs. 175 on the 1st February 1850; on detached duty to British Sikkim (Darjeeling) from 1st October 1851 to November 1852; placed in independent charge of the survey party during season 1851-52; services were favourably noticed; on 1st January 1852 promoted to Rs. 200 per mensem; in December 1852 rejoined the Bhagalpur and Beerbhum Survey; on the 1st January 1855 promoted to Rs. 250 per mensem; sick leave from 8th July 1857 to 13th January 1858; promoted to Rs. 300 per mensem on the 1st of January 1859; assumed charge of the 1st or Northern Division Revenue Survey on the 6th October 1860 as Assistant Revenue Surveyor on Rs. 388 per mensem; promoted on the 1st July 1862 in the above survey to Revenue Surveyor; promoted on the 1st April 1666 to Deputy Superintendent, 3rd grade; on the 21st December 1866 was transferred from Assam to the 2nd Division, Central Provinces Survey; on the 6th November 1868 promoted to Officiating Deputy Superintendent, 2nd grade; on the 19th September 1872 transferred to the 4th Division, North-Western Provinces Revenue Survey, to organize a cadastral survey party, subsequently called 7th or Hamirpur District Survey; on the 1st October 1876 transferred to the 7th or Khorda Revenue Survey; furlough, private affairs, from 10th January 1880.

### LIEUTENANT-COLONEL BRYDGES ROBINSON BRANFILL, Bengal Cavalry, Deputy Superintendent, 2nd grade.

MARCH 14th, 1854, sailed from England as Cadet of Cavalry, Honourable East India Company's Service; June 24th, 1854, landed at Calcutta; August and September, doing duty with 1st Regiment, Light Cavalry, at Cawnpore; October 1854, posted to and joined 5th Bengal Light Cavalry at Ferozpore; 1855, passed the Vernacular, and passed Hindustani at Peshawur 1855 or 1856; 1855-56, on outpost duty with detachment of Regiment at Fort Abbazai, present at one or two stringshes with Mohnands near Shabhadar; 1855-56, Acting Quarter Master of the Regiment; May 5th, 1856, promoted to Lieutenant; June 26th, 1856, appointed Adjutant of the Regiment; April 28th, 1858, doing duty with 7th K. Dragoon Guards at Sialkot; June 2nd, 1858, medical certificate to Murree (for Peshawur fever); October 4th, 1858, appointed (on probation) to Great Trigonometrical Survey; 1858-59 and 1859-60, two field seasons, levelling in Sind under Major Walker. R. E.; April 7th, 1860, promoted to Captain; April 1860, Assistant Surveyor under Major Walker with expeditionary force under General N. R. Chamberian against the Mahaud Waziria, present at the taking of the Bura Tanji (stated to have a claim for Frontier Service Medul); 1860-61 and 1861-62, in charge of the levelling operations from Sind to Dehra Dun, Attok and Agra (having elected to remain "a local" in Her Majesty's Indian Army); May 1st, 1862, transferred to the Coast Series under Captain Busevi, and joined at Waltair (Vizagapatam); July 14th, 1862, employed in camp selecting Base Line till 14th July; 1862-63, took part in base line measurement; July 18th, 1862-63, executed the line of levels for connection with tide gauge, and also the connecting triangulation with 24th chedolicis; 1863-66, in (sole) charge Complete Series to Madras (110 miles) by 10th June (hardly); 1865-66, carried Madras Longitudinal Series to Bangalore 120 miles; 1866-67, 20 months leave, medical certificate (eye-sight failed from overwork); went to England and back, 28th May 1866 to 24th January 1868; 1867-68, selected C

MAJOB GEORGE STRAHAN, Royal Engineers (Bengal), Deputy Superintendent, 2nd grade.

JOINED the Corps of Royal Engineers at Chatham, February 1st, 1859; remained under instruction at the establishment there till June 1860; proceeded to India, October 4th, 1860; arrived in the country, November 20th, 1860; remained in regimental employ with the Sappers and Miners at Roorkee from 6th December 1860 till March 1861; employed in the Irrigation Department, Public Works Department, till July 2nd,

1862; appointed on 2nd July 1862 to Survey Department; served as Assistant in the Gwalior and Central India

Vide G. G. O. No. 605, dated 26th September 1869,—vide General Report, 1860 to 1805, page 30, para. 100.

Survey for two years; received charge of No. 7 Party, Rajputana Survey, 1st September 1864; \* took sick leave to England for 20 months from 10th November 1867 to 6th

to England for 20 months from 10th November 1867 to 6th
July 1869; promoted to rank of Captain, January 14th,
1871; appointed Deputy Superintendent, 3rd grade, November 10th, 1867; appointed Deputy Superintendent,
2nd grade, October 26th, 1870; transferred to charge of No. 8 Party, Mysoro Survey, 1st October 1875; furlough to Europe on private affairs, May 1st, 1877; returned to India, April 15th, 1879; received charge of
No. 2 Party, Khandesh Survey, June 4th, 1879; received charge of Mysore Topographical Party from 1st
November 1879; promoted to rank of Major, 27th May 1881; received charge of No. 2 Astronomical Party
from 4th November 1881.

WAR SERVICES.

Nil.

MAJOR THOMAS TUPPER CARTER, Royal Engineers (Bengal), Deputy Superintendent, 2nd grade,

JOINED the service, 11th December 1857; arrived in India, 12th December 1859; did duty with the Bengal Sappers and Miners; appointed Acting Quarter Master to the same from 9th March 1860, and continued as such till 5th February 1860; ordered 6th February 1860 to join the Sikkim Field Force; appointed Probationary Sappers and Miners; appointed Acting Quarter Master to the same from 9th March 1860, and continued as auch till 5th February 1860; ordered 6th February 1860 to join the Sikkim Field Force; appointed Probationary Assistant Engineer, Department of Public Works, 21st May 1861; posted to Peshawur Division, Department Public Works, 22nd June 1861; promoted to 2nd class Assistant Engineer, 16th November 1861; officiated as Executive Engineer, Hazara Division, from 18th December 1861 to 30th April 1862; appointed 2nd Assistant in Great Trigonometrical Survey of India, 1st March 1862; joined the Kashmir Party, 1st May 1862; promoted to 1st Assistant, junior grade, 21st April 1864; nominated to charge of Kashmir Party and Kumaon and Garhwal Party, 3rd February 1865, and remained in charge till 1st May 1867; promoted to Surveyor, 3rd grade, 1st April 1866; appointed to charge of the survey party accompanying the Abyssinian Expedition, 1st December 1867 to 8th March 1869, when, on completion of the work connected with this survey, returned to India; rejoined the Kumaon and Garhwal Party; October 1869 took charge of detached party, and proceeded to the North-Western frontier to fix positions of peaks in country north of Peshawur; designation changed to Deputy Superintendent, 3rd grade, 20th August 1869; local Captain, 11th December 1869; Captain, 13th September 1870; furlough to Europe, 18th December 1870 to 16th December 1871; promoted to Deputy Superintendent, 2nd grade, 1st October 1871; appointed to charge of the Brahmaputra Party, 13th May 1872; reverted to Deputy Superintendent, 3rd grade, on the introduction of consolidated salaries, 1st April 1874; furlough to Europe, 4th January 1875 to 16th November 1876; appointed to charge of the Madras Party, 20th November 1876 to 3lst May 1877; charge of the Guzerat Party, 15th June 1877; Major, 1st October 1877; charge of Kumaon and Garhwal Party, 1st October 1878; assumed charge of No. 1 Gwalior and Central India Party, 6th May 1879; furlough to Europe for two years from 1s

#### WAR SERVICES

Served in the capacity of Survey Officer with the Sikkim Field Force under Lieutenant-Colonel Gawler in 1861; mentioned in despatches—vide G. O. G. G., Military Department. No. 440, dated 14th May 1861; served throughout the Umbeyla Campaign under Brigadier-General Sir Neville Chamberlain, K. c. n., and Major-General Garvock, c. n., in 1863 against the Boneyr and other tribes on the North-West frontier; mentioned in despatches—vide G. O. G. G., Military Department, No. 76 of 29th January 1864—medal and clasp; served in the Abyssinian Expedition under Lieutenant-General Sir Robert Napier, G. c. B., G. c. S. I.; mentioned in despatches—vide London Gazette of 30th June 1868—medal.

LIEUTENANT-COLONEL DONALD MACDONALD, Bengal Staff Corps, Deputy Superintendent, 2nd grade.

Joined the service, 20th October 1853; arrived in the country, 1st December 1853; appointed to the 25th Regiment, Bengal Native Infantry; Lieutenant, 18th January 1856; Officiating Quarter Master, May 1857 to April 1858; Adjutant, April 1858; sick leave to Europe, 20th May 1859 to 12th August 1860; appointed to the Survey Department, Rovenue Branch, 19th December 1860; Captain, 1st January 1862; joined Staff Corps, 13th August 1864; Revenue Surveyor, 1st January 1865; Deputy Superintendent, 3rd grade, 1st April 1866; furlough, private affairs, to Europe, 18th January 1872 to 14th January 1874; Major, 20th October 1873; Deputy Superintendent, 2nd grade, 1st January 1878; promoted to Lieutenant-Colonel, 20th October 1879.

WAR SERVICES.

Nil.

Majon F. CODDINGTON, Bengal Staff Corps, Deputy Superintendent, 2nd grade.

JOINED the service as a 2nd Lieutenant in the Bengal Artillery on the 12th June 1857; arrived in the country, 16th October 1857; promoted to 1st Lieutenant on the 27th April 1858; appointed to the Bengal Horse Artillery on the 23rd October 1858; transferred services to Royal Horse Artillery in May 1861; appointed an Assistant Surveyor in the Survey Department on the 13th January 1862, and transferred to Bengal Staff Corps an Assistant Surveyor in the Survey Department on the 13th January 1862, and transferred to Bengal Staff Corps from same date; appointed to the charge of a survey party, 3rd Division, Oudh, on the 1st January 1864; sick leave to Europe from the 10th December 1865 to 25th July 1867; promoted Deputy Superintendent of Survey, 3rd grade, on the 26th July 1867; attached to head quarters office from 26th July 1867 till the 15th November 1867; received charge of the 4th Division, Central Provinces Revenue Survey, on the 27th November 1867; 1807; received enarge of the 4th Division, Central Provinces Revenue Survey, on the 27th November 1807; promoted Captain, 12th June 1869; raised and received charge of a new survey, 10th Division, Deccan, on the 1st November 1871; furlough to Europe from 29th March 1875 to 18th March 1877; appointed to do duty in the head quarters office from 19th March 1877; promoted Major, 12th June 1877; furlough, six months, on urgent private affairs, under Rule XI. of 1868 Rules, from 16th February 1878 to 11th August 1878; rejoined appointment in head quarters office, 12th August 1878; promoted Deputy Superintendent, 2nd grade, on the 27th October 1878.

## WAR SERVICES.

Served with the Cawnpore Field Force and at intrenched camp at Alumbagh and capture of Lucknow between 30th December 1857 and 23rd April 1858. (Medal with clasp for Lucknow.)

Brevet Lieutenant-Colonel WILLIAM MAXWELL CAMPBELL, Royal Engineers (Bombay), Deputy
Superintendent, 2nd grade.

Joined the service, 1st August 1858; landed in India, 26th October 1860; attached to Bombay Sappers and Miners at Poons till 15th April 1861, when he marched to Jaulnah in command of a Company of Sappers and Miners, August 1861; joined Great Trigonometrical Survey of India on 30th January 1863 as second Assistant; Junior 1st Assistant, 11th March 1865; promoted to 3rd grade Deputy Superintendent on 1st February 1869, and to 2nd grade Deputy Superintendent, 1st January 1879; Captain, December 1869; took two years furlough from 12th December 1868, during which he was placed on special duty to assist Colonel Strange in the preparation of survey instruments; returned to India on 3rd September 1871; took six months leave on urgent private affairs on 8th December 1873, during which he was again placed on special duty with Colonel Strange; returned to India, 23rd September 1874; Major, 1st October 1877; took furlough for one year on 5th February 1878, and returned to India on 4th February 1879, and proceeded on survey duty to join the Southern Division, Afghanistan Field Force, under command of Lieutenant-General D. Stewart, C. B; returned to India, 3rd February 1879; Brevet Lieutenant-Colonel, 22nd November 1879; received charge of No. 2 Astronomical Party, October 1880; on furlough, private affairs, for six months from 10th November 1881.

MAJOB ROBERT VANSITTART RIDDELL, Royal Engineers (Bengal), Deputy Superintendent, officiating 2nd grade; Assistant Surveyor General.

Joined the late Honourable East India Company's Military Seminary at Addiscombe, February 1858; appointed Lieutenant, Bengal Engineers, 10th June 1859; attached to the Head Quarters Royal Engineers, Chatham, from August 1859 to November 1860; lauded in India, 16th March 1861; joined the Bengal Sappers and Miners, 23rd May 1861; commanded a European Company of the Bengal Sappers and Miners from August 1861 to August 1862; appointed Military 2nd Assistant, Topographical Survey of India, and joined No. 1 Party; employed in Gwalior and Central India, 28th August 1862; transferred as Military Assistant to No. 5 Party employed in Rewah, October 1863; appointed to executive charge of No. 6 Topographical Party employed in Gwalior and Central India, November 1866; transferred to the charge of No. 1 Party employed in Gwalior and Central India, November 1866; transferred to the charge of No. 5 Party, employed in Rewah, Bundeleund, Bhopal, and Malwa, from June 1867, and remained in charge of that party until September 1874; appointed Deputy Superintendent, 3rd grade, 1st October 1867; promoted to Captain, 20th January 1871; promoted to Officiating Deputy Superintendent, 2nd grade, from 11th August 1873 to 28th October 1874; attached to the head quarters office of the Surveyor General at Calcutta from 9th December 1874 to 24th March 1875; furlough to Europe from 26th March 1875 to 12th September 1876; Assistant Surveyor General from 6th October 1876, with charge of the Mathematical Instrument Department and Workshops, and of the Lithographic Branch, Surveyor General's Office; officiated as Deputy Superintendent, 2nd grade, from 8th November 1876 to 6th May 1879, and from 1st November 1879 to the present date; promoted to Major, 3rd June 1881; officiated as Mint Master, Calcutta, from 3rd July 1881 to 2nd October 1881.

WAR SERVICES.

Nil.

MAJOR CHARLES STRAHAN, Royal Engineers (Bengal), Deputy Superintendent, officiating 2nd grade.

DATE of first commission, 8th June 1860; landed at Calcutta, October 1862; appointed to Survey Department as Military 2nd Assistant, and attached to No. 1 Party, 26th September 1863; took charge of reconnoitring party in Bhutan under General Tytler in October 1865; promoted Assistant Surveyor, 1st grade, 1st April 1866; rejoined No. 1 Party, 16th July 1866; promoted to Surveyor, 3rd grade, 1st December 1867; furlough to Europe from 2nd December 1871 to 27th October 1873; promoted to Captain, 20th August 1872; Officiating Deputy Superintendent, 2nd grade, 4th January 1874; reverted to Deputy Superintendent, 3rd grade, 5th October 1878; Officiating Deputy Superintendent, 2nd grade, 27th October 1878; reverted to Deputy Superintendent, 3rd grade, 27th October 1878; reverted to Deputy Superintendent, 3rd grade, 22nd April 1870; officiated as Deputy Superintendent, 2nd grade, from 1st November 1879 to 13th March 1880; furlough to Europe from 27th March to 10th October 1880; Officiating Deputy Superintendent, 2nd grade, from 18th October 1880 to present date; promoted to Major, 1st July 1881.

## WAR SERVICES.

Served with the Bhutan Field Force in charge of reconnoitring party under General Tytler from October 1865 to 16th July 1866; medal and clasp—served with the Peshawur Field Force in Afghanistan under Sir Samuel Brown from March 1879 to end of first Campaign in June 1879.

MR. JOHN OWEN NIX JAMES, Deputy Superintendent, 3rd grade, Assistant Surveyor General.

APPOINTED to the Great Trigonometrical Survey of India as 3rd class Sub-Assistant, 29th July 1845; promoted to 2nd class Sub-Assistant, 29th July 1846; promoted to 1st class Sub-Assistant, 29th July 1851; appointed Senior Sub-Assistant, 10th July 1854; promoted to Civil 2nd Assistant Surveyor, 1st June 1855; transferred as Officiating Chief Draftsman, Surveyor General's Office, 1st September 1858; appointed Assistant Surveyor and Chief Draftsman, 12th July 1861; promoted to 1st grade Assistant Surveyor, Topographical Survey Idenational, 1st April 1866; promoted to 3rd grade Surveyor, 1st April 1869; Assistant Surveyor General and Deputy Superintendent, 3rd grade, 1st April 1874; Officiating Deputy Superintendent, 2nd grade, from 15th May

1876; reverted to 3rd grade Deputy Superintendent, 19th September 1876; Officiating Deputy Superintendent, 2nd grade, from 15th February 1878; reverted to 3rd grade from 1st April 1878; furlough to Europe from 1st April 1878 to 9th October 1879; officiated as Deputy Superintendent, 2nd grade, from 14th March to 17th October 1880; officiated Deputy Superintendent, 2nd grade, from 14th December 1880; reverted to 3rd grade from 27th July 1881; Officiating Deputy Superintendent, 2nd grade, from 5th November 1881 up to present time. Obtained the Iudian Mutiny Medal, 1857.

## MAJOR WILLIAM BARRON, Bengal Staff Corps, Deputy Superintendent, 3rd grade.

Joined the Bengal Artillery as 2nd Lieutenant on 11th December 1858; arrived in the country, 4th February 1859; did duty with the Bengal Artillery at Meerut and Peshawur till end of March 1860; did duty with the Peshawur Mountain Train Battery during April and May 1860; rejoined the Artillery Division at Peshawur, June 1860, and continued there till appointed to the Peshawur Mountain Train Battery on 22nd August 1861; served with it at Murdan and Abbottabad till 3rd July 1862; appointed Assistant Revenue Surveyor in the Revenue Survey, 27th June 1862, and joined on 4th July 1862; joined the Bengal Staff Corps, 4th July 1862; Assistant Superintendent, 1st grade, 27th June 1866; surveyed in the Delhi, Peshawur and Hazara Districts till 15th December 1866; held charge of the North-West Frontier Survey from 12th October to 15th December 1866, and took charge of the 2nd Division, Lower Provinces, at Dibrugarh, Assam, on 1st Exhauser 1867. Officiating Deputy Superintendent, 3rd grade, 6th November 1868, continued there surveying to 16th December 1866, and took charge of the 2nd Division, Lower Provinces, at Dibrugarh, Assam, on 1st February 1867; Officiating Deputy Superintendent, 3rd grade, 6th November 1868, continued there surveying in the Lakhimpur District till 8th December 1869; leave on medical certificate to Europe from 6th January 1870 to 3rd April 1871; promoted to Captain, 11th December 1870; appointed Deputy Superintendent of Survey, 3rd grade, on 1st April 1870; on return from furlough took charge of the North-West Frontier Revenue Survey on 17th April 1871; surveyed in the Dera Ghazi Khan District till 15th October 1873; transferred to the 4th Division, Revenue Survey, and took charge on the 13th November 1873; continued since then in charge, and surveyed District Moradabad (cadastrally) and District Budaon; Major, 11th December 1878.

Favourably mentioned in despatch No. 7, dated India Office, London, 5th May 1870, from the Right Honourable the Secretary of State for India, to His Excellency the Right Honourable the Governor General of India in Council, for his work in the Lakhimpur District.

#### WAR SERVICES.

Served with the Peshawur Mountain Train Battery in the Mahsood Wuzeeree Expedition during April and May 1860 and the forcing of the Burrara Pass; served as Assistant Surveyor with the Umbeyla Expedition, October 1863; severely wounded in the action at the Eagle's Nest Picket on 26th October 1863; wound pension for life (medal with North-West Frontier and Umbeyla clasps).

## LIEUTENANT-COLONEL H. C. B. TANNER, Bombay Staff Corps, Deputy Superintendent, 3rd grade.

LIEUTENANT-COLONEL H. C. B. TANNER, Bombay Staff Corps, Deputy Superintendent, 3rd grade.

Appointed to the Bombay Artillery on the 8th June 1854; joined the Survey Department from the E Brigade, Royal Horse Artillery, as Assistant in the Sindh Revenue Survey on 10th October 1862; transferred with the Sind Party to Chauda, Central Provinces; the party became the 4th Division, Central Provinces Revenue Survey, in February 1865; took sick leave from 18th February to 13th March 1866; furlough to Europe from 14th March 1866 to 11th May 1867; after rejoining from furlough, doing duty in the head quarters office, Calcutta, from 11th May to 23rd June 1867; was placed in charge of the 3rd Division, Central Provinces Revenue Survey at Saugor, on 24th June 1867; transferred with the party to the Nimar District in November 1867; became Officiating Deputy Superintendent from 6th November 1868; became Deputy Superintendent, 3rd grade, from 1st April 1870; took charge of the Bombay City Survey in addition to his other duties in December 1869; transferred with the 3rd Division, Central Provinces Survey, to Bhawalpur; the party became the 1st Division, Bhawalpur Revenue Survey, in November 1870; transferred to the Topographical Party, which accompanied Sir Charles Brownlow's column to Lushai Hills, on 1st November 1871 to 30th April 1872; on return from Lushai Expedition was transferred to charge of 4th Division, Central Provinces, from 29th August 1872; the designation of this party subsequently was altered to the 11th Decean Topographical Party from 1st October 1872; promoted to the rank of Major, 8th June 1874; took furlough on private affairs on 25th August 1876; rejoined the 11th Division, Decean Survey, on expiration of furlough on private affairs on 25th August 1876; rejoined the 11th Division, Central Provinces (Party Provinces Israel Trigonometrical Survey Office at Mussourie on completion of Afghanistan campaign in June 1879; on Great Trigonometrical Survey Office at Mussourie on completion of Afghanistan campaign in June 1879; on special duty to Gilgit from July 1879 to present date; promoted to Lieutenant-Colonel, 22nd November 1879.

## WAR SERVICES.

Accompanied the Persian Expeditionary Force of 1856 as Subaltern in No. 5 Light Field Battery, and was present at the landing at Halila Bay, the taking of Reshire and Bushire, and the action of Kushat (medal and clasp); accompanied a force despatched after the rebels from Kurrachee to Nugger Parker in May 1859; accompanied Sir Charles Brownlow's column during the Lushai Expedition in November 1871 as Surveyor, (clasp); mentioned in despatches, and received the thanks of the Government of India; accompanied Sir Samuel Brown's column, 1st Division, Peshawur Valley Field Force, as Surveyor, from the commencement to the termination of hostilities in 1878-79.

## MR. EDWARD THOMAS SMITH JOHNSON, Deputy Superintendent, 3rd grade.

Appointed as Junior Sub-Assistant Revenue Surveyor to the Ajmere and Mhairwara Revenue Survey on APPOINTED as Junior Sub-Assistant Revenue Survey or to the Ajmere and Mhairwara Revenue Survey on 3th October 1847; transferred with the Survey Division to Delhi and Rohilcund on the 1st November 1848; promoted to 3rd grade Sub-Assistant Surveyor on 1st January 1850, to 2nd grade, 1st January 1851, and to 1st grade on 1st October 1853; remained in this Survey Division (as the 1st or Western Division, Rohilcund Survey) up to 30th September 1854; transferred with survey to Jubbulpore on 1st October 1854, and again transferred, on promotion to 3rd Civil Assistant to the newly raised Survey at Neemuch, on 16th October 1854; re-transferred to the Jubbulpore Survey on 20th January 1856; promoted to 2nd grade Civil Assistant on 1st December 1856; on the breaking out of the mutiny did garrison duty at the Jubbulpore Residency; transferred on 1st January 1858 with Survey Division to Nagpur (1st or Eastern Division, Nagpur Survey); promoted to 1st grade Civil Assistant on 1st April 1860; re-transferred with survey to Jubbulpore (Saugor and Nerbudda Survey) on 1st October 1861; joined the Drawing Branch of the Head Quarters Office (Calcutta) on 1st November 1861; took charge of Correspondence Branch from 1st April 1862; ampunited Assistant Surveys in charge of 1861; took charge of Correspondence Branch from 1st April 1862; appointed Assistant Surveyor in charge of

the Darjeeling Survey on 21st November 1862; proceeded in charge of above survey party to Benares, &c., on 1st November 1867; on completion of cantonment survey, took up the revenue survey of Bhawulpur (as the 2nd Division, Bhawulpur Survey) on the 1st November 1869; appointed 3rd grade Deputy Superintendent on 5th July 1870; took over charge of 1st Division, Bhawulpur Survey, on 1st November 1871, and the charge of the 3rd Division, North-West Provinces Cadastral Survey (now called No. 6 Party Revenue Branch), on the 1st October 1872; received charge of No. 3 Party Revenue Branch on the 21st November 1881.

# MAJOB WILLIAM JAMES HEAVISIDE, Royal Engineers (Bengal), Deputy Superintendent, 3rd grade,

MAJOR WILLIAM JAMES HEAVISIDE, Royal Engineers (Bengal), Deputy Superintendent, 3rd grade.

Joined Royal Military College, Addiscombe, 1st August 1857; first commission as 2nd Lieutenant, Bengal Engineers, 10th June 1859; joined at Chatham, 1st August 1859; left Chatham in March 1861; granted three months' extension in England to study railway engineering; landed in Calcutta, 1st November 1861; joined Sappers and Miners at Roorkee (about), 15th December 1861; joined Agra and Bombay Road Division, Department Public Works, as Probationary Assistant Engineer, 15th September 1862; promoted to 2nd grade Assistant (about), 1st May 1863; transferred to 2nd Division, Allahabad, Department of Public Works, in August 1864; left Department of Public Works for field service on 14th February 1865; on return from service joined the Great Trigonometrical Survey, 3rd January 1866, as 2nd grade Assistant; posted to East Calcutta Longitudinal Series, charge of No. 2 Astronomical Party from September 1866 until taking furlough to Europe on 30th October 1870; promoted to 1st grade Assistant, Great Trigonometrical Survey, 1st March 1868; promoted to Captain, 24th March 1871; promoted to Deputy Superintendent, 3rd grade, Great Trigonometrical Survey, 5th April 1872; returned from furlough, 4th April 1872, to take charge of pendulum operations, and remained in charge until the completion of them; in joint charge of longitude operations with Major W. M. Campbell, B. E. from November 1875 until taking furlough, 16th November 1877; on return from furlough, 28th November 1878, proceeded to join the Southern Afghanistan Field Force; returned to India, and received charge of Khandesh and Bombay Native States Topographical Party, 24th October 1879; received charge of No. 1 Astronomical Party, 18th October 1880; Brevet-Major, 22nd February 1881; promoted to Major, 1st July 1881.

#### WAR SERVICES.

Served with the Left Centre Column, Bhutan Field Force, as Assistant Field Engineer, 1865-66—medal; served in 1878-79 with the Southern Afghanistan Field Force on special survey duty; joined Lieutenant-General Stewart's column at Kandahar, and accompanied the Tal Chotiali Force under Major-General Biddulph on its return to India; specially mentioned in Tal Chotiali Field Force orders by Major-General Biddulph No. 427, dated 16th May 1879.

#### MAJOR AYRTON PULLAN, Bengal Stuff Corps, Deputy Superintendent, 3rd grade,

APPOINTED a Cadet of Infantry, February 1856; landed in India, 29th April 1856; date of first commission as Ensign, June 14th, 1856; Lieutenant, 26th December 1856; Officiating Quarter Master, 4th Sikh Infantry, July 1857; sick leave from Delhi Field Force, 12th September to 30th November 1857; appointed Adjutant, Berry's Sikhs, November 1857; Adjutant, Gorakpoor Military Police, January 1858; Adjutant, Benares Horse, January 1859; appointed to the Staff Corps, 18th February 1861; attached to Her Majesty's 8th Hussars, November 1861; Doing Duty Officer, 14th Bengal Cavalry, January 1862; officiated as Assistant Political Agent, and Bazar Master, Morar, from April to June 1862; Doing Duty Officer, 8th Bengal Cavalry, June 1862; appointed 2nd Assistant, Great Trigonometrical Survey, 18th January 1863; promoted to 1st Assistant (designation changed to Assistant Surveyor, 1st grade), 1st October 1866; promoted to Captain, 14th June 1808; furlough to Europe for two years, 31st December 1869; Assistant Superintendent, 1st grade, and Officiating Deputy Superintendent, 3rd grade, Great Trigonometrical Survey, 1th December 1871; appointed to the charge of the Kattywar Survey, 6th April 1873; promoted to Major, 14th June 1876; appointed Deputy Superintendent, 3rd grade. Great Trigonometrical Survey, 1st January 1878; furlough to Europe for one year, from 13th May 1878; return to duty, 19th April 1879; resumed charge of Kattywar Survey, 26th April 1879. APPOINTED a Cadet of Infantry, February 1856; landed in India, 29th April 1856; date of first commission

#### WAR SERVICES.

Served as orderly officer to Brigadier Johnstone on the March from Jullundar to Delhi, June 1857; served with the 4th Sikh Infantry throughout the seige of Delhi; severely wounded; medal and clasp, also mentioned in despatches three times during the Indian rebellion and received the thanks of Sir C. Wingfield, Chief Commissioner of Oudh, for the defence of the town of Bansee when attacked by an insurgent force, July 1858 (horse wounded).

## MAJOR DAVID CLAPHAM ANDREW, Bengal Staff Corps, Deputy Superintendent, 3rd grade.

JOINED the service on the 9th December 1859 as Ensign on the General List of Bengal Infantry; arrived Joined the service on the 9th December 1859 as Ensign on the General List of Bengal Infantry; arrived in India, 7th March 1860; G. O. C. C., dated 9th April 1860, directed to do duty with Her Majesty's 77th Regiment; promoted Lieutenant on the 10th September 1861; by G. O. C. C., dated 25th March 1852, ordered to join and do duty with the 21st Punjab Infantry, Native Regiment; joined the Revenue Survey Department as Probationary Assistant Surveyor on the 30th December 1862, and confirmed, 18th January 1864; Assistant Superintendent, 1st grade, on the 30th December 1866; joined Bengal Staff Corps, 18th January 1864; promoted Captain on the 9th December 1871; promoted Deputy Superintendent of Revenue Survey, 3rd grade, on the 1st January 1878; proceeded on furlough on medical certificate to Europe on the 28th May 1878; returned to India on the 12th June 1879, and resumed charge of substantive duties on the 13th June 1879; placed in charge of Bassein District, British Burma Survey, 11th November 1879; promoted to Major, 9th December 1879; transferred to No. 11 South Decem Survey, 20th November 1880.

WAR SERVICES.

MAJOB WILLIAM HENRY WILKINS, Bengal Staff Corps, Deputy Superintendent, 3rd grade.

JOINED the Bengal Artillery, 12th December 1857; arrived in the country, 28th January 1858; promoted to 1st Lieutenant, 27th August 1858; joined Thomason College, Roorkee, 12th March 1861; obtained 1st class

certificate, &c., 27th August 1862; privilege leave until 1st November 1862, on which date received general leave in India for three months, afterwards extended to six months; commanded the garrison battery in Agra Fort (the 20 days' leave not expended was never cancelled), 11th April 1863; joined the Fyzabad Revenue Survey as Assistant on probation, 27th April 1863; confirmed as Assistant Revenue Survey, and appointment to Staff Corps dated from 11th May 1864; joined 1st Division, Central Provinces Revenue Survey, 13th November 1864; promoted to Assistant Superintendent, 1st grade, 27th April 1867; Captain, 12th December 1869; Assistant Superintendent in charge of 1st Division, Central Provinces Survey, 3rd August 1870 to 16th December 1870; joined the 2nd Division (Punjab) Revenue Survey, 1st July 1871; Officiating Deputy Superintendent, 3rd grade, 13th May 1871 to 24th September 1871; received charge of 2nd Division (Punjab) Revenue Survey, 20th October 1871; Officiating Deputy Superintendent, 3rd grade, from 18th January 1872 to 3rd March 1872, and from 28th March 1872 to 18th March 1877; received charge of 12th (Midnapur) Revenue Survey, 1st December 1876; received charge of 14th (Dearah) now 3rd Division Survey of India, 7th December 1877; Major, 12th December 1877; confirmed as Deputy Superintendent, 3rd grade, 27th October 1878. Received charge of No. 8, l'arty, Bassein District, British Burma on 25th November 1881.

#### WAR SERVICES.

Nil

## MAJOR J. E. SANDEMAN, Bengal Stuff Corps, Deputy Superintendent, 3rd grade.

Major J. E. Sandeman, Bengal Staff Corps, Deputy Superintendent, 3rd grade.

Joined the Royal Military College at Addiscombe in 1860; obtained a commission as Ensign in the Bengal Infantry on the 7th June 1861; arrived in India in October 1861; was attached for duty to Her Majesty's 90th Light Infantry; promoted to Lieutenant, 19th May 1862; 10th October 1862 passed the P. H. examination in Hindustani; had leave in India, private affairs, 15th December 1862 to 12th February 1863; by G. O. C. C., dated 23rd March 1863, was permitted to study at the Civil Engineering College at Roorkee; in September 1864 passed the College final examination, and obtained certificate qualifying for employment as an Engineer in the Department Public Works; was appointed to the Survey Department, and joined appointment at Nagpur on the 6th October 1864; from 17th February 1866 was transferred to 2nd Division, Oudh Survey, and from 13th November 1866 to North-Western Frontier, a survey party in the Punjab; joined the Staff Corps on the 9th May 1867; served in the Punjab till 1870, when by G. G. O., dated 20th December 1869, No. 1265, he was granted two years' furlough to England; he availed himself of this from 14th March 1870, and reported his arrival at Bombay again on the 16th February 1872; rejoined his appointment at Nagpur as Assistant Superintendent of Survey on 2ist February 1872; from 1st October 1872 was transferred to the Moradabad Cadastral Survey; in March 1873 was transferred to Bengal and took over charge of the Midnapur Survey from 21st March 1873; was promoted to Captain by G. G. O., dated 18th June 1873, from 7th June 1873 under R. W. of 16th January 1861; made over charge of the Midnapur Survey in March 1873; was promoted to Captain by G. G. O., dated 18th June 1873, from 7th June 1873 under R. W. of 16th January 1861; made over charge of the Midnapur Survey for 1874 was appointed to the Behar Irrigation Survey as Assistant Superintendent; from 1st October 1875 obtained charge of the Darjeeling waste lands survey,

## WAR SERVICES.

Served with the Black Mountain Expedition in Hazara under Major-General Alfred Wilde from 15th August to 31st October 1868; was present at the advance from Munna Kaduna, and the taking of the Machai Peak; assisted in surveying the route taken by the force and the surrounding country under the direction of Colonel H. C. Johnstone, and compiled a map of the same; received the frontier medal.

## MAJOR W. F. BADGLEY, Bengal Staff Corps, Deputy Superintendent, 3rd grade.

Joined the service, 4th April 1857; arrived in Calcutta, 15th May 1857; doing duty with Her Majesty's 88th and 53rd Regiments to 25th November 1858; Lieutenant, 18th May 1858; Oudh Military Police, 26th November 1858; Adjutant, 26th Punjab Infantry, to 11th April 1865; appointed to the Topographical Survey on 8th May 1865, and joined No. 5 Party employed in Rewah and Bundelcund, and remained with that party till October 1868; Assistant Superintendent of Survey, 8th May 1868; Captain, 4th April 1869; furlough, 23rd January 1869 to 21st January 1871; joined and received charge of No. 6 Topographical Party; employed in the Khasi, Garo, and Naga Hills on 8th June 1871, and remained in charge of that party up to the present time, with the exception of a period from October 1874 to August 1875, during which Major Godwin-Austen lad charge; Major, 4th April 1877.

## WAR SERVICES.

Mutiny and Lushai Expedition-medals and clasp; minor affairs on eastern frontier; four wounds; no recognition of services.

## BREVET-MAJOR T. H. HOLDICH, Royal Engineers (Bengal), Officiating Deputy Superintendent, 3rd grade.

COMMISSIONED Licutemant, R. E., 17th December 1862; appointed to India, October 1864; arrived in COMMISSIONED Licutenant, R. E., 1711 December 1802; appointed to India, October 1804; arrived in India, 3rd March 1865; appointed Assistant to Licutenant C. Strahan, R.E., in charge, Field Survey Operations in Bhootan, October 1865; gazetted Assistant Superintendent, 2nd grade. Topographical Survey of India, 23rd July 1865, and joined the Rajputana Topographical Party; attached to special party for service in Abyssinia, December 1867; proceeded to England from Abyssinia on special duty. June 1868; Assistant Superintendent, 1867; proceeded to England from Abyssinia on special duty. June 1868; Assistant Superintendent, India and Cartest Ludio and Cartest Ludio and Cartest Ludio. 1st grade, 15th December 1868; returned to India, 4th May 1869; and joined the Gwilior and Central India Topographical Survey; acted in charge of the party during seasons 1871-72 and 1872-73; Officiating Deputy Superintendent, 3rd grade, from 11th August 1873 to 3rd November 1873, and again from 15th December 1873 to 14th May 1877, appointed to charge of Vizagapatam Agency and Central Provinces Survey, 15th December 1873; Captain. Royal Engineers, 4th June 1876; left India on furlough to Europe, 14th May 1877; recalled to join Afghanistan Field Force, December 1878; arrived in India, 15th January 1879; officiated as Deputy

Superintendent, 3rd grade, from 15th January to 13th June 1879, and from 1st November 1879 to the present time. Brevet-Major, 2nd March 1881; special leave to England for three months from 1st November 1880; assumed charge of Kohat Topographical Survey, 15th February 1881.

#### WAR SERVICES.

Served on special survey duty during Bhootan Campaign from October 1865 to close of campaign; present with the Buxa column to its furthest advance, and subsequently with the Dewangiri column during advance to the Monas; despatches not published; frontier medal and clasp for Bhootan; served on special survey duty during the Abyssinian Campaign from December 1867 to close of campaign; mentioned in despatches of Sir R. Napier dated 1st June 1868; services commended by Secretary of State for War-medal; served on special survey duty during 1st period of Afghan Campaign from February 1879 till close of campaign; present with Sir M. Biddulph's division during march from Pishin to India wid Tal-chotiali; mentioned in despatches by Sir M. Biddulph's services specially acknowledged in Field Force Order No. 427 of 16th May; received acknowledgment of Governor General in Council and Secretary of State for India; served in charge of survey operations in Northern Afghanistan during 2nd period of the campaign; present at several actions fought near Kabul in November and December 1879, seige and defence of Sherpur, occupation of Lughman Valley, expeditions to Kohistan, Logar and Wardak, E. C.; mentioned in despatches by Sir F. Roberts; received thanks of Governor General in Council and Secretary of State for India for services in charge of survey operations—medal with clasp for Kabul; served in charge survey operations during expedition against the operations—medal with class for Kabul; served in charge survey operations during expedition against the Mahsud Waziris in the spring of 1881; present at skirmish on Shaidar Mountain when survey party was attached; mentioned in despatches by Brevet-General R. Kennedy, Commanding Expedition.

## MR. JAMES CAMPBELL, Assistant Superintendent, 1st grade.

APPOINTED by Sudder Board of Revenue, Bengal, an apprentice at Rs. 40 in the Survey Department, 20th September 1844, and joined the Sarun and Chumparun Revenue Survey, 8th October 1844; Sub-Assistant, 3rd APPOINTED by Sudder Board of Revenue, Bengal, an apprentice at Rs. 40 in the Survey Department, 20th September 1844, and joined the Sarun and Chumparun Revenue Survey, 8th October 1844; Sub-Assistant, 3rd grade, at Rs. 80 per month, 1st October 1845; employed on survey of Nepal Frontier among hills North of Chumparun in January and February 1846; charge of a revenue survey camp in District Tirhoot from April 1846; Sub-Assistant Surveyor, 3rd grade, at Rs. 125, 1st January 1849; in District Mymensing, Bengal, from January 1850; Sub-Assistant Surveyor, 2nd grade, at Rs. 150, and transferred to Robilcund Survey, 1st October 1850; privilege leave from 1st November to 21st December 1850; Sub-Assistant, 2nd grade, at Rs. 175, 1st January 1852; Sub-Assistant Surveyor, 1st grade, at Rs. 200, 1st October 1853; transferred to Jubbulpore District, Central Provinces, in October 1854; Assistant Surveyor, 3rd grade, at Rs. 250, 1st January 1858; transferred to Nagpur District, January 1858; Assistant Surveyor, 2nd grade, at Rs. 300, 1st January 1858; Assistant Surveyor, 2nd grade, at Rs. 300, 1st January 1858; Assistant Surveyor, 2nd grade, at Rs. 300, 1st January 1858; Assistant Surveyor, 2nd grade, at Rs. 300, 1st January 1858; Assistant Surveyor, 2nd grade, at Rs. 300, 1st January 1858; Assistant Surveyor, 2nd Bobulpore, Narsingpur and Hoshungabad from November 1860; Senior Assistant Surveyor, at Rs. 400, 1st January 1864; in charge Robilcund Topographical Survey, 29th November 1865; survey of tea plantations in Kumaon and Gurhwal in 1866; in Bareilly District from October 1866, also survey of settlement and cantonments of Naini Tâl; Assistant Superintendent, 1st grade, 29th November 1867; Officiating Deputy Superintendent, 3rd grade, 1st November 1871; reverted to Assistant Superintendent, 11th August 1872; charge of 15th Division Survey, Bahawalpur, Punjab, October 1874; reverted to Assistant Superintendent, 23rd January 1877; furlough in India from 8th May 1877 to 6th January 1878; charge of North-Western Provinces Cad

## MAJOR JAMES WATERHOUSE, Bengal Stuff Corps, Assistant Superintendent, 1st grade, and Assistant Surveyor General, Photo, Branch

Assistant Surveyor General, Photo. Branch.

Joined the service as 2nd Lieutenant, Bengal Artillery, 10th June 1859; arrived in the country, 11th October 1859; services placed temporarily at the disposal of the Foreign Department for special duty, 15th November 1861; left regimental duty, 16th January 1862; returned to regimental duty, 21st December 1862; appointed Officiating Commissary of Ordnance, 3rd class, 13th April 1866; services placed at the disposal of the Government of Bengal, 5th June 1866; appointed Assistant Revenue Surveyor, Lower Provinces, 27th June 1866; services placed at the disposal of the Government of India, Home Department, 7th July 1866; appointed Assistant Surveyor with superintendence of the photozincographic operations in the Office of the Surveyor General of India, 18th July 1866; joined the Survey Department, 22nd July 1866; leave on medical certificate to Europe, 25th March 1867 to 17th February 1869; re-appointed Assistant Surveyor, 2nd grade, 17th February 1869; gazetted Lieutenant in Bengal Staff Corps, 10th June 1859; promoted to 1st grade Assistant Superintendent of Survey from 17th June 1870; promoted to Captain, Staff Corps, 10th June 1871; attached to Colonel Tennant, R. E., for duty with the Indian Eclipse Expedition from 21st November 1871 to 8th January 1872; attached to Colonel Tennant, n. E., for duty in observing the transit of Venus from 10th October 1874 to 1st January 1875; in charge Indian Eclipse Expedition to Nicobar Islands from 11th March to 18th April 1875; Officiating Deputy Superintendent of Survey, 3rd grade, from 26th March 1875; reverted to Assistant Superintendent, 1st grade, 19th September 1876; Officiating Deputy Superintendent, 3rd grade, from 1st February 1878; on special duty in Europe from 10th October 1878 to 8th November 1878; Officiating Deputy Superintendent, 3rd grade, from 1st February 1878; on special duty in Europe from 10th October 1878 to 8th November 1878; Officiating Deputy Superintendent, 3rd grade, from 9th November 1878 to 6th May 1 26th December 1881.

WAR SERVICES.

Nil.

MAJOB MALCOLM W. ROGERS, Royal Engineers (Bengal), Assistant Superintendent, 1st grade.

Joined the service as a gentleman Cadet in February 1860; appointed Licutenant in the Royal Engineers, 18th December 1861; served as Divisiou Officer, Cork, Ireland, from 1864 to 1865; landed in India,

20th October 1865; served with the Bengal Sappers and Miners until 4th July 1866; appointed Assistant Surveyor, 2nd grade, Great Trigonometrical Survey of India, on 5th July 1866; promoted to Assistant Surveyor, 1st grade, 5th December 1868; Officiating Deputy Superintendent, 3rd grade, from 18th December 1870; reverted to Assistant Superintendent, 1st grade, 1st November 1872; Officiating Deputy Superintendent, 3rd grade, from 6th April 1873; furlough on private affairs from 1st November 1873; Captain, 11th December 1873; returned to India and appointed Officiating Deputy Superintendent, 3rd grade, 28th October 1874; reverted to Assistant Superintendent, 1st grade, from 1st January 1878; Officiating Deputy Superintendent, 3rd grade, from 26th April 1879; Officiating Deputy Superintendent, 3rd grade, 12th December 1879; furlough to Europe for 1 year and 4 days, 1st May 1880; returned from furlough 15th June 1881, appointed Officiating Deputy Superintendent, 3rd grade, 15th June 1881; promoted to rank of Brevet-Major, 2nd March 1881. Promoted to Major, 18th December 1881. 18th December 1881.

#### WAR SERVICES.

Served as Survey Officer with the 1st Division of the Quetta Field Force under Lieutenant-General D. Stewart, C. B., from 12th November 1878 to November 1879.

## CAPTAIN J. HILL, Royal Engineers (Bengal), Assistant Superintendent, 1st grade.

CAPTAIN J. HILL, Royal Engineers, joined the service, 25th June 1862, and arrived in India, 10th December 1865; joined Bengal Sappers and Miners at Roorkee, 27th January 1866; appointed 2nd grade Assistant Surveyor, Great Trigonometrical Survey of India, 4th December 1866; posted to Kumaon and Garhwal Series, Grent Trigonometrical Survey, 28th December 1866; sick leave to Europe from 11th November 1868 to 30th October 1869; promoted to Assistant Superintendent, 1st grade, Great Trigonometrical Survey, from 30th October 1870; received charge of the Kumaon and Garhwal Series, afternoon of 10th February 1871; Officiating Deputy Superintendent, 3rd grade, 4th April 1872; Officiating Deputy Superintendent, 3rd grade, 23rd August 1873; relieved of charge of Kumaon and Garhwal Series, 1st October 1873; received charge of Bombay party, 28th October 1874; local Captain, 25th June 1874; reverted to substantive appointment of Assistant Superintendent, 1st grade, 28th October 1874; relieved of charge of Bombay party, 19th October 1879; furlough to Europe from 20th January 1875 to 28th January 1877; Captain, 16th September 1875; rejoined appointment in India, 28th January 1877; assumed charge of the Eastern Frontier Series, 17th March 1877; Officiating Deputy Superintendent, 3rd grade, 1st April 1878; reverted to substantive appointment of Assistant Superintendent, 1st grade, 22nd April 1879; furlough to Europe for 182 days, 26th May 1879; subsidiary leave from 17th May; returned from furlough and resumed charge of Eastern Frontier Series, 25th December 1879; Officiating Deputy Superintendent, 3rd grade, from 9th April 1880. 3rd grade, from 9th April 1880.

WAR SERVICES.

MAJOR HENRY LEES SMITH, M. A., LL. D., Bengal Staff Corps, Assistant Superintendent, 1st grade,

Joined the Royal Artillery (Imperial List), 1st April 1861; arrived in India, 13th November 1861; appointed to the Bengal Staff Corps as Probationary Assistant Revenue Surveyor, 20th March 1866; Assistant Revenue Surveyor, 2nd grade, 18th June 1867; 1st grade Assistant Superintendent, Revenue Survey, 18th June 1870; Surveyor, 2nd grade, 18th June 1867; 1st grade Assistant Superintendent, Revenue Survey, 18th June 1870; Captain, 1st April 1873; furlough to Europe on private affairs from 24th April 1876 to 26th December 1877; resumed charge of appointment on 11th January 1878 as Assistant Superintendent, 3rd Division, Saharunpur, North-Western Provinces; transferred to 1st Division, Dera Ismail Khan, 1st October 1878; assumed charge of 1st Division, 26th October 1878, in the afternoon, to 5th December 1879; assumed charge of No. 10 Party, Bombay Topographical Survey, from the 13th November 1880; Officiating Deputy Superintendent, 3rd grade, from 17th November to the 13th December 1880; promoted to rank of Major, 1st April 1881; Officiating Deputy Superintendent, 3rd grade, from 15th June to 26th July 1881, from 1st August to 31st October 1881, and from 3rd November 1881 to the 25th December 1881.

WAR SERVICES.

Nil.

## MB. HENRY HORST, Assistant Superintendent, 1st grade.

APPOINTED Librarian and Accountant to the Thomason Civil Engineering College, Roorkee, 1st January 1853 up to September 1854; appointed as a 3rd class Sub-Assistant in the Great Trigonometrical Survey (without break of service), 1st September 1854; transferred to the Topographical Survey on Major-General Sir A. Waugh's retirement; promoted to the Senior Department, 1st April 1868; officiated as Surveyor, 3rd grade, from 16th October 1868 to 4th April 1869; promoted to Assistant Superintendent, 1st grade, 1st October 1869; officiated as Deputy Superintendent, 3rd grade, from 1st January to 18th January 1879. Services—Assisted in the Topographical Survey of the Jhelum and Rawal Pindi Districts till its completion; Gwalior and Central India Survey, Rajputana Survey, and in charge of same for nine months; Simla Survey, Bhopal and Malwa Survey; appointed to the charge of No. 2 Topographical Party or Khandesh and Bombav Native States Survey. 18th October 1874; in charge of picket which repulsed night attack on the Murree Sanitarium in September 1857 (mutiny medal); gave information through Captain W. G. Murray to the General Commanding the Agra Division in 1862, which led to the seizure of Harbuns Ram, Soubah of Dholpur, and dispersion of 6,000 troops he had quietly collected in the Chumbal ravines for a revolt; furlough to Europe for two years from 5th June 1879; extension for 3 months, with further extension on subsistance allowance. for two years from 5th June 1879; extension for 3 months, with further extension on subsistance allowance.

ME. WILLIAM HAMMOND COLE, M. A., CANTAB. F.R.A.S., F.B.G.S., Assistant Superintendent, 1st

APPOINTED to the Educational Department, North-Western Provinces, direct from England, 14th April 1862, as Professor of Mathematics at the Government College, Agra; sick leave from 9th September to 8th November

1863; permitted to resign appointment from 1st March 1864 on account of continued ill-health; after nearly three years' residence at Mussooree as Mathematical Master at Mr. Maddock's School was re-appointed to the three years' residence at Mussooree as Mathematical Master at Mr. Maddock's School was re-appointed to the Government service, 3rd January 1867, as Probationary Assistant Surveyor in the Great Trigonometrical Survey of India and Assistant to the Officer in charge of the Computing Office, being at the same time placed in charge of the Photozineographic Branch of the Computing Office, Dehra; appointed Assistant Surveyor, 2nd grade, on 1st September 1867; conducted the duties of the Computing Office in all its branches from middle of December 1867 to beginning of April 1868 during the absence of Mr. J. B. N. Hennessey, M. A., the Officer in charge, who was deputed to superintend the measurement of the Bangalore Base Line; designation changed to Assistant Superintendent of Surveys on 1st September 1869; promoted to 1st grade from 4th December 1870; officiated as Deputy Superintendent, 3rd grade, from 1st April 1871 to 16th December 1871; officiated again in this grade from 2nd November 1873 to 30th September 1874; officiated again as Deputy Superintendent, 3rd grade, and held charge of the Computing Office, from 4th January 1875 to 27th March 1876; furlough on private affairs from 27th March 1876 to 21st March 1877; on amalgamation and reduction of the three branches of the Survey Department on the 1st January 1878, reverted to the grade of Assistant Superintendent, 2nd grade, officiating in 1st grade; again promoted to 1st grade from 27th October 1878.

## MR. HENRY BLAQUIRE TALBOT, Assistant Superintendent, 1st grade.

APPOINTED in the Junior Department of the Great Trigonometrical Survey, 1st December 1848; served under the orders of Captains DuVernet and Robinson in the North-Western Himalaya Series and Sind Saugor Doab, 30th June; resigned, 1852; joined the Revenue Survey as Sub-Assistant, 1st October 1852; Sub-Saugor Doab, 30th June; resigned, 1852; joined the Revenue Survey as Sub-Assistant, 1st October 1852; Sub-Assistant, 2nd class, 1st January 1854; served under the orders of Captains G. Hunter Thompson, G. Hamilton and A. D. Vanrenen in the Baree Doab, Bharatpur and Bundelcund Surveys; promoted to Assistant Surveyor, 1st January 1858; appointed to the charge of the Robilcund Survey in October 1862; transferred to the charge of the 2nd or Upper Assam Survey, 29th November 1865; appointed to the Senior Branch at the re-organization on 1st April 1866, as Probationary Assistant Superintendent; promoted to 1st grade on 12th September 1870; transferred to the 6th Division, Cadastral Survey, Agra, 1st October 1872, after the abolition of the 2nd or Upper Assam Survey; reverted to 2nd grade Assistant Superintendent on the amalgamation of the Topographical and Revenue Surveys, 19th March 1877; appointed to Behar Irrigation Survey from 1st October 1876, and in charge of the 9th Division, Cadastral Irrigation Survey, Orissa, 28th November 1878; promoted to 1st grade Assistant Superintendent, 22nd December 1878; appointed to charge of Tharawaddy District, British Burma Survey, from 1st November 1880.

## MAJOR ANDREW WILSON BAIRD, Royal Engineers (Bengal), Assistant Superintendent, 1st grade.

Joined the service, 18th December 1861 as Lieutenant, Royal Engineers; arrived in India, 4th March 1863; served with the Bombay Sappers and Miners from 2nd April till 4th May 1864, when, having passed the colloquial examination in Hindustani, was appointed to the Bombay Public Works Department as Probationary Assistant Engineer; joined the Bombay Defences Division on 16th May 1864; gazeted Special Assistant, while employed in the Bombay Defences, on 27th May 1864; passed the departmental examinations, and gazetted Assistant, 2nd class, Engineer; joined the Bombay Defences Division on 16th May 1864; gazetted Special Assistant, while employed in the Bombay Defences, on 27th May 1864; passed the departmental examinations, and gazetted Assistant, 2nd class, on 28th March 1865; promoted to Assistant, 1st grade, 1st April 1865; appointed Special Assistant to Executive Engineer for reclamations, 7th December 1865; ruised to increased pay, 11th April 1866; placed on seconded list from date of joining the Public Works Department by G. G. O., 31st July 1866; appointed Executive Engineer, 4th grade, 2nd October 1867, but permitted to remain, at his own request, as Special Assistant for reclamations in Bombay; services placed at the disposal of Military Department for duty in Abyssinia, 30th January 1868; appointed Assistant Field Engineer with the Abyssinia Force, 24th February 1868; retained by the Military Department on return from Abyssinia for special duty in Bombay by G. O., 30th June 1868; services placed at disposal of Chief Engineer, Presidency, when relieved from military duty, and joined Bombay Defences as Assistant Engineer, 1st grade, 24th November 1868; services placed at disposal of Government of India, 1st December 1868; appointed to the Great Trigonometrical Survey of India as Assistant Surveyor (corresponding to present Assistant Superintendent), 2nd grade, 4th December 1868; placed in charge Bombay Levelling Party on its formation, 27th September 1869; in consequence of reduction in the Survey this party was suspended; transferred to Guzerat party as Assistant Superintendent, 31st March 1870; proceeded to England on medical certificate on 14th May 1870; in July 1871, while on furlough in England, employed specially to study the practical details of tidal observations and their reduction by harmonic analysis as carried on under the superintendence of Sir William Thomson, until date of return to India; promoted Assistant Superintendence of Sir William Thomson, until date of return to India; promoted Assistant Superintendence of Sir Willi

## WAR SERVICES.

Served with the Abyssinia Field Force in 1868 as Assistant Field Engineer, and appointed Traffic Manager of the Railway; mentioned in the despatches for zeal and management in bringing safely and expeditiously, troops and baggage for embarkation-medal.

## Major J. R. McCULLAGH, Royal Engineers, Assistant Superintendent, 1st grode.

First commission, 18th December 1861; joined at Chatham, February 1862; joined at Belfast, June 1861; landed at Calcutta, 20th October 1865; joined head quarters, Bengal Sappers and Miners, Roorkee, 27th October 1865; Officiating Doing Duty Officer, 27th January 1866; Command of Detachment, 1st and 3rd Companies, B. S. and M., at Peshawur, 30th April 1866; passed Lower Standard, Hindustani;

permanent Doing Duty Officer, 4th July 1867; Officiating Adjutant and 2nd in Command, B. S. and M., 17th April 1868; appointed to the Public Works Department, 6th November 1868; appointed to the Great Trigonometrical Survey of India, 1st March 1869, as Assistant Surveyor, 2nd grade; officiating in charge, Guzerat Party, ten months, 1870-71; Assistant Superintendent, 1st grade, 1st January 1872; Captain, 11th December 1873; under the re-organization became Assistant Superintendent, 2nd grade, 1st April 1874; furlough to Europe from 1st November 1873 to 27th October 1874; Officiating Assistant Superintendent, 1st grade, 28th October 1874; charge of No. 1 Extra Party, 13th November 1874; Officiating Assistant Superintendent, 1st grade, in charge No. 9 Party, Mysore Topographical Survey, 1st August 1875; reverted, 12th April 1877; Officiating Assistant Superintendent, 1st grade, in charge No. 8 Party, Mysore Topographical Survey, 27th April 1877; furlough to Europe with six months' duty at Chatham in addition from 5th November 1877 to 5th May 1879; Officiating Assistant Superintendent, 1st grade, 6th May 1879, and attached to Mysore Topographical Survey; promoted to Assistant Superintendent, 1st grade, on 14th December 1880; joined Hanthawaddy District Cadastral Survey in British Burma on 2nd June 1881, and received charge of Party on 1st August 1881. Promoted to Major, 18th December 1881.

#### WAR SERVICES.

Appointed Assistant Field Engineer to the Bhutan Field Force, and to Command No. 2 Company, B. S. and M., 3rd January 1866 (medal and clasp).

## MAJOR JOHN RANDAL WILMER, Bengal Staff Corps, Assistant Superintendent.

Joined the service as Lieutenant in the Royal Artillery on the 22nd June 1859; joined the Battery at Guernsey, 1st August 1859; arrived in India on 27th October 1860; Acting Adjutant, 11th Brigade, Royal Artillery, for one month, May 1863. Held command of G11 Royal Artillery from 22nd September 1864 till 24th March 1866 (one year and six months); leave on private affairs, 7th May 1866 to 7th August 1866 (three months); Acting Adjutant, 11th Brigade, September and October 1867; embarked for England with G11 Royal Artillery on 20th November 1867; leave on private affairs, 18th February 1868 to 18th April 1868; returned to India and joined 3-22nd Royal Artillery, 28th April 1869; officiated as a 3rd class Commissary of Ordnance from 22nd June 1869 to 23rd August 1869; appointed to Staff Corps, 24th August 1869; Assistant Superintendent, Topographical Survey, 24th August 1869; sick leave from 19th December 1871 to 2nd March 1872; promoted Brevet-Captain, 22nd June 1871; promoted to Assistant Superintendent, 1st grade, Topographical Survey, 28th August 1872; substantive Captain in Staff Corps, 24th August 1873; appointed to charge of No. 5 Topographical Survey Party, 12th October 1874; reverted to Assistant Superintendent, 2nd grade, on amalgamation of the Surveys; Officiating Assistant Superintendent, 1st grade, 1st January 1878.

## WAR SERVICES.

Nil.

## MB. JOHN McGILL, Assistant Superintendent.

Joined the Bombay Party, Great Trigonometrical Survey of India, as Sub-Assistant, 3rd grade, on the 1st October 1851; employed on the Aboo Meridional Series under Lieutenant, now General, H. Rivers, B. E.; promoted to Sub-Assistant, 2nd grade, 10th June 1854; triangulation Kattywar, Thar Parkar and Cutch under Lieutenant D. J. Nasmyth, B. E.; privilege leave for three months; Base Line, Karachi and triangulation in Kutch; promoted to 1st class Sub-Assistant, 1st August 1856; triangulation in Sind, Kutch and Guzerat under Captain D. J. Nasmyth, R. E.; promoted to Senior Sub-Assistant on 1st January 1859; triangulation in Mewar and Guzerat under Captain C. T. Haig, R. E.; privilege leave for two months; promoted to Junior Civil Assistant, 2nd grade, on 1st December 1861; approximate work, Mangalore Series and Bombay Longitudinal Series, under Captain C. T. Haig, R. E.; privilege leave for one month in 1863; promoted to Civil 2nd Assistant on 17th August 1864; privilege leave for one month in November 1864; transferred to Northern Bombay Party, 1st November 1865, under Captain D. J. Nasmyth, R. E., and employed in the triangulation and survey of the Island of Bombay; assumed charge of the party for one month on Captain Nasmyth's going on sick leave and made over charge to Captain Haig, R. E., in March 1866; privilege leave for one month, 1st May 1867; promoted to Civil 1st Assistant on 1st September 1867; triangulation for topographical work in Kattywar; privilege leave for one month, 1st May 1870: promoted to Assistant Superintendent, 2nd grade, 1st March 1871; officiated in charge of the Kattywar Party for two months from 1st September 1873 by new organization scheme of 1874, 1st April, Assistant Superintendent, 2nd grade, and officiating in 1st grade; three months privilege leave from 1st June 1875; officiated in charge of Kattywar Party for two months from 20th March 1877 to Springer Leave from 1st June 1875; officiated in charge of Kattywar Party form 27th April 1878; furlough for one year from 4th July 1879;

## MAJOR S. H. COWAN, Bengal Staff Corps, Assistant Superintendent.

Joined the service, 9th December 1859; arrived in India, 9th April 1860; served with Bengal Artillery Depôt at Meerut, April 1860; posted to 4th Company, 3rd Battalion, Bengal Artillery; served with D Battery, 16th Brigade, Royal Artillery, February 1861; appointed in the Ordnance Department, 4th October 1866; admitted to Staff Corpe, 19th January 1867; appointed Assistant Superintendent, 3rd grade, in the 4th Division Survey, Bengal, 19th January 1867; appointed Assistant Superintendent, 2nd grade, 17th March 1868; went on furlough to Europe to 30th May 1870; promoted to Captain (Brevet), 9th December 1871; returned from furlough, 3rd May 1872; transferred to 1st Division (Assam) Survey, 1st June 1872; promoted to Captain, 24th December 1872; went on sick leave to Europe, 16th July 1875; returned from Europe, 7th November 1876; transferred to Behar Irrigation Survey, 30th November 1876; transferred to Behar Irrigation Survey, 30th November 1876; transferred to head quarters office, Photo. Branch, 14th November 1879; promoted to Major, 9th December 1879. On special duty, Surveyor General's Office, Photographic Branch, Calcutta, from 26th December 1881.

# Majob EDWARD HARRIS STEEL, Bengal Staff Corps, Assistant Superintendent.

Joined the service on 8th June 1860, and arrived in India. 11th October 1860; leave on medical certificate to hills north of Kumaon from 10th June to 1st November 1861; leave on medical certificate to Europe from May 1865 to June 1866, after Bhutan Campaign; appointed Assistant Superintendent of Survey, 2nd grade, Survey Department, 1st February 1867, in Assam; leave to Europe on medical certificate, December 1867 to December 1868; returned to Regiment of Royal Artillery; re-appointed and re-joined Survey Department as Assistant Superintendent, 2nd grade, on 26th January 1869; admitted to Staff Corps, 26th January 1869; Captain, Staff Corps, 26th January 1873; in charge 2nd Division Revenue Branen from 2nd November 1876 to 19th April 1877, and again from 18th July to 18th November 1877; Officiating Assistant Superintendent, 1st grade, from 1st to 11th January 1878, again from 1st February to 6th May 1879; Officiating Assistant Surveyor General, 17th March 1878 to 9th October 1879; Officiating Assistant Superintendent, 1st grade, from 20th June to 10th October 1879; in charge of No. 1 Gwalior and Central India Topographical Party from 20th October 1879 to 18th October 1880; promoted to Major, 8th June 1880; Officiating Assistant Superintendent, 1st grade, from 1st November 1879 to date; transferred to charge of Bassein District Survey from 20th November 1880; furlough on medical certificate from 8th December 1881.

#### WAR SERVICES.

Served with Khasi and Jaintia Field Force from December 1862 to May 1863; served with Bhutan Field Force from November 1864 to April 1865; present at taking of Dewangiri (medal and clusp).

# Majon H. S. HUTCHINSON, Bengal Staff Corps, Assistant Superintendent.

CAPET at the Military College, Addiscombe, from January 1858 to December 1859; appointed a Lieutenant in the Bengal Artillery on 9th December 1859; landed in India, 9th April 1860; served with the Artillery at Mecrut, Lahore, and Peshawur up to 9th April 1865; appointed to No. 1 Light Field Battery, Punjab Irregular Force, on 10th April 1865, per G. G. O. No. 380 of 1865; served with it at Bunnu and Dera Ismail Khan up to 12th August 1867; appointed as Probationary Assistant Superintendent of Survey in the 3rd Division, Central Provinces, on 13th August 1867, and appointed to the Staff Corps on the same date; promoted to 2nd grade Assistant Superintendent of Survey on 13th August 1868; served with the 3rd Division up to 20th May 1870; furlough to Europe on medical certificate from 21st May 1870 to 31st December 1871; promoted to local rank of Captain on 9th December 1871; served with the 4th Division, Central Provinces Survey, from 1st January 1872 to 30th September 1872; appointed to 11th December Topographical Survey on 1st October 1872; promoted to substantive rank of Captain on 25th March 1873; Officiating Assistant Superintendent of Survey, 1st grade, from 1st January 1878; promoted to Major, 9th December 1879. Served with Ghazipur Cadastral Survey from 1st January to 3rd April 1881. In temporary charge of the Darjceling Survey Party from afternoon of the 8th April 1881; on duty head quarters office, Calcutta, from 2nd to 22nd August 1881; furlough on medical certificate from 29th August 1881.

#### WAR SERVICES.

Nil.

## MB. EDWIN CLIFFORD BARRETT, Assistant Superintendent.

Joined the Right Bank, Indus, Sind Revenue Survey, as Probationary Assistant Surveyor, 18th November 1862; Sub-Assistant, 3rd grade, 1st January 1864; transferred to Central Provinces (Chanda District) Survey, 1st February 1865; passed the examination prescribed for the Senior Department, and appointed Assistant Superintendent, 2nd grade, 30th December 1868; sick leave for one month from 20th June 1869; transferred to the Raipur District Survey (2nd Division, Central Provinces), 1st November 1869; passed the Higher Standard Examination in Hindustani. 20th October 1871; was one of the staff of survey officers who accompanied the right column, Looshai Expeditionary Force, in 1871-72; officiated as Assistant Superintendent, 1st grade, from 30th December 1871 to 3rd March 1872; transferred to the 1st Division, Bahawalpur, from 1st June 1872; transferred to the 4th Division, North-Western Provinces, 1st October 1872; officiated as Assistant Superintendent, 1st grade, from 6th July 1873 to 4th November 1873, and again from 1st December 1873 to 4th January 1874; transferred to the Khurda Estate Survey, Orissa, 1st November 1876; in charge of the Khurda Estate Survey, Orissa, 1st November 1876; in charge of the Khurda Estate Survey, Orissa, 1st November 1876; in charge of the Cuttack District Irrigation Survey from 23rd May to 28th November 1878; transferred to the 6th Division, North-West Provinces, from 1st December 1878; transferred to 6hazipur Survey, 28th July 1879, thence to Bassein Survey, British Burma, 11th November 1879; furlough to Europe 27th August 1880.

#### WAR SERVICES.

Served with the right column, Looshai Expeditionary Force, in 1871-72; medal and clasp, and received the thanks of the Government of India.

## MAJOR REGINALD BEAVAN, Bengal Staff Corps, Assistant Superintendent.

APPOINTED as Ensigo, 4th May 1860, General List Infantry; 11th June 1860, arrived in India, attached for duty to 19th Foot at Benares; leave on medical certificate to Europe from 16th October 1860 till 11th October 1862 (exclusive); 1st January 1862, promoted to Lieutenant; in 1861, went through a course of instruction at the School of Musicetry, obtained extra first

\* 11/9 Presidency Division Order of 4th November 1882.

27th March 1863, appointed Musketry Instructor to the 19th Hussars at Lucknow, marched with them to Agra; Meerut, held this appointment till 15th April 1865; 15th April 1865, leave on private affairs to the hills; 12th July 1865, took up the appointment of Quarter Master, 22nd Punjab Native Infantry, at Umballa;

marched to Morar in May 1866; attended the officers' surveying class at Roorkee in the winter of 1867-68. first class certificates for surveying and field engineering; 9th September 1867, appointed to the Bengal Staff Corps; 17th July 1868, appointed to the Topographical Survey Department as Assistant Surveyor, 2nd grade (this appointment was afterwards cancelled and made probationary); joined No. 6 Party, Khasi, Garo and Naga Hills Survey at Cherrapunji; 9th November 1869, promoted to Assistant Surveyor, 2nd grade; 1st May 1870, transferred to Revenue Branch and joined Hazaribagh Survey Party; 1st October 1870, transferred to Bahawulpur Party; 1st December 1870, transferred to Dera Ghazi Khan Survey; furlough (medical certificate) to England from 25th November 1871 to 22nd November 1872; joined 1st Division, Central Provinces Survey, 20th November 1872, on detached duty at Chandqueth from Palymary to May 1873; on detached duty at Chandqueth from Palymary to May 1873; on detached duty at Chandqueth from Palymary to May 1873; on detached duty at Abiri. to England from 25th November 1871 to 22nd November 1872; joined 1st Division, Central Provinces Survey, 29th November 1872; on detached duty at Chandgurh from February to May 1873; on detached duty at Abiri, Chanda District, during the field season of 1873-74; transferred to Dera Ismail Khan Survey, 1st October 1874; worked in Dera Ismail Khan, Bunnoo and Rawal Pindi Districts, and in the winter of 1877-78 in the Jowaki country and Kohat Pass; reduced to Assistant Superintendent, 3rd grade, 1st January 1878, by the operation of the new organization of, the Survey Department; 13th May 1878, officiating 1st grade Assistant Superintendent; 5th October reverted to officiating 2nd grade; 27th October promoted to 2nd grade (third time); 27th October officiating 1st grade; 28th November reverted to 2nd grade; 22nd December officiating 1st grade; 4th February 1879, reverted to 2nd grade; promoted to Major, 4th May 1880; Officiating Assistant Superintendent, 1st grade, from 17th November 1880 to present time.

#### WAR SERVICES.

Attached to the Kandahar Field Force from October 1878; accompanied General Biddulph's Division to Girishk; mentioned in 2nd Division Field Force order and by General Biddulph dated 6th March 1879; during the winter of 1879-80 was engaged exploring the country between Quetta, Thal Chotiali and Sibi up to end of March 1880; from 27th July 1880 to the present time engaged on survey duties in the same tracts.

## BREVET LIEUTENANT-COLONEL ROBERT GOSSET WOODTHORPE, Royal Engineers (Bengal), Assistant Superintendent.

Joined the service, 25th June 1865; left Chatham, November 1867; employed in Works Department Manufacturing District in England, till May 1869; arrived in India, 25th November 1869; joined the head quarters, Bengal Sappers and Miners, at Chakrata, 24th December 1869; served with them till 31st May 1871; joined the Topographical Survey, No. 4 Party, 18th July 1871; transferred to No. 6 Party for service with the Lushai Expeditionary Force, October 1871; had charge of the survey party with the Garo Expedition in field season 1872-73; accompanied Captain Badgley in the Naga Hills survey during field season 1873-74; Officiating Assistant Superintendent, 1st grade, 11th August 1873; reverted to Assistant Superintendent, 3rd grade, 1st April 1874, on amalgamation with Revenue Survey; separate charge, Naga Hills survey party, during field season 1874-75; re-appointed substantive Assistant Surveyor General in charge Lithographic Branch from July till 31st October 1875; separate charge Naga Hills survey, 1875-76; on death of Captain Butler, Political Agent, in January 1876, appointed Political Officer with the survey (extra allowance, Rs. 200 per mensem for this additional work, and thanks of the Governor General in Council); charge of North Lakhimpur Topographical Survey, 1876-77 (thanks of the Governor General in Council); charge for this additional work, and thanks of the Governor General in Council and Secretary of State for India); charge of North Lakhimpur Topographical Survey, 1876-77 (thanks of the Governor General in Council); charge North Brahmaputra Topographical Survey, 1877-78; Captain, 22nd May 1878; Officiating 1st grade Assistant Superintendent, 28th May 1878; reverted to officiating 2nd grade, 12th August 1878; transferred from No. 6 Topographical Party, September 1878; charge of survey party with the Frontier Expeditionary Field Force, Kuram Column; substantive 2nd grade Assistant Superintendent, 2nd December 1878; Officiating Assistant Superintendent, 1st grade, 1st January 1879; reverted to 2nd grade, 15th January 1879; furlough on private affairs for one year from 30th October 1880; promoted to rank of Brevet-Major 22nd November 1879, and to Brevet Licutenant-Colonel, 2nd March 1881.

## WAR SERVICES.

Served with the Left Column, Lushai Expeditionary Force, 1871-72 (frontier medal with clasp for Lushai); served with the Garo Hills Expedition in 1872-73, and with the Naga Hills Punitive Expedition in 1875 (mentioned in despatches); joined the Kuram Column, Frontier Expeditionary Field Force, 1st Afghanistan Campaign at Kohat, 25th October 1878; present at the action on the Peiwar Kotal (slightly wounded); mentioned in despatches; 2nd Campaign from 28th September 1879 to date of evacuation of Kabul; present at Alikhel, 14th October; at Killa Kariz Mir on 10th and Charda 11th December 1879; attack of Takht-i-shah, 13th; Asmai heights, 14th, and subsequent operations till 23rd December 1879 inclusive; skirmishes at Saidabad, 25th and 26th April 1880 (very slightly wounded); thanks of Governor General in Council and Secretary of State for India; mentioned in despatches of Generals Robert and Ross.

## BREVET LIEUTENANT-COLONEL E. P. LEACH, v. c., Royal Engineers, Assistant Superintendent.

Brevet Lieutenant-Colonel E. P. LEACH, v. c., Royal Engineers, Assistant Superintendent.

Date of 1st commission, 17th April 1866; landed in India, 17th December 1868; joined the Bengal Sappers and Miners at Roorkee; commanded 5th Company, Sappers and Miners, on detachment at Rawul Pindi from 1st April 1869 to 18th February 1870; appointed to the Public Works Department as Assistant Engineer, 2nd grade, 20th February 1870, and posted to Military Works Branch at Morar; appointed to the Topographical Survey of India as Assistant Superintendent, 2nd grade, 14th October 1871, and posted to No 6 Topographical Party for Field Service with Lushai Expeditionary Force; transferred upon conclusion of the expedition to No. 1, Gwalior and Central India Survey (officiated in charge from 12th May to end of June 1873); promoted Officiating 1st grade Assistant Superintendent, 4th January 1874; transferred to No. 5 Party, Bhopal and Malwa Survey, officiating in charge, 15th September 1874; transferred to No. 7 Party, Rajputana Topographical Survey, 5th October 1874; reverted to 3rd grade Assistant Superintendent upon amalgamation of Topographical and Revenue Surveys with effect from 1st April 1874; re-appointed to substantive 2nd grade Assistant Superintendent by order of Governor General in Council, 1875, with effect from 1st April 1874; appointed to charge of No. 7 Party, Rajputana Survey, 1st October 1875; relieved of charge 1st November 1877; furlough on private affairs for 18 months, from 26th November 1877; reverted to 3rd grade Assistant Superintendent upon amalgamation with Trigonometrical Survey, and owing to reduction of Survey Department, 1st January 1878; joined at Chatham for duty in extension of furlough on 16th March 1878; qualified in advanced class—sub-marine mining; reverted to furlough, 15th September 1878; appointed by Secretary of State for India Private Secretary to James Caird, Esq., c. B. Famine Commissioner, and ordered to proceed to India upon special duty in extension of furlough, 10th October 1878; o

rejoin Survey Department for field service with Army in Afghanistan at Calcutta, 23rd December 1879; joined 1st Division, Peshawur Field Force, 9th January 1879, at Jellalabad; reinstated Assistant Superintendent, 2nd grade, 1st January 1879; promoted Captain, 1st January 1879; furlough to Europe on medical certificate from 12th September 1879 to 23rd February 1880; promoted to rank of Brevet Major 22nd November 1879, and to rank of Brevet Lieutentant-Colonel 2nd March 1881; Officiating Assistant Superintendent, 1st grade, from 1st February to 15th June 1881; transferred to Revenue Branch and received charge of No. 6 Party, Hooghly River Survey, Bengal, on 17th November 1881.

#### WAR SERVICES.

Served with Lushai Expeditionary Force from 15th November 1871 to 1st April 1872 (medal with clasp); received thanks of Government of India and Secretary of State for India for valuable service; served with the Army in Afghanistan with the Kabul Field Force from January 1878 to 5th May 1879; severely wounded at Maidanak, 17th March 1879; Brevet of Major and V. C.; served the 2nd Campaign from 10th March 1880 with the Southern Division Afghanistan Field Force, including the action at Maiwand, Seige of Kandahar and battle of 1st September; appointed Brigade Major and Field Engineer, Royal Engineers, Kandahar Field Force, from 30th July to 27th October 1880. (Brevet Lieutenant-Colonel, medal and clasp.)

## MB. G. H. COOKE, Assistant Superintendent.

Came to the country in 1865; joined the Department, 6th December 1866, as Sub-Assistant, 1st class, under Major James Sconce, Assistant Revenue Surveyor, 3rd class, on 6th December 1869, and Probationary Assistant Superintendent, 1st April 1870; Assistant Superintendent, 2nd grade, 10th May 1871; worked in the Hazaribagh District Survey until October 1871; from November 1871 to May 1872, with Lusliai Expeditionary Force; examination leave for three months, from 5th June 1872 to 4th September 1872; transferred to head quarters from 5th September 1872; from 1st November 1872 special duty, Chittagong; in June 1873, transferred sick to Nnini Tâl, and completed the survey of the Naini Tâl Cantonment on the scale of 16-inches—one mile; in November 1873, was transferred to the 9th Belaspur District Survey, and completed the survey of Aheri Zemindari; under the re-organization of 1st April 1874, Officiating Assistant Superintendent, 3rd grade; in November 1874 commenced work in the Azinggarh District under Mr. W. Lane (Cadastral Survey); on 1st April 1876, transferred to 2nd or Goorgaon District Survey; in November 1876, transferred to 1st or 10th Deccan Survey; held charge of the survey from 22nd August 1877 to 2nd January 1878; Officiating Assistant Superintendent, 2nd grade, from 1st January 1878; again took over charge of 1st or 10th Deccan Survey from the late Captain E. W. Samuells on 12th September 1878; furlough from 22nd May 1880; promoted to Assistant Superintendent, 2nd grade, on 14th December 1880.

## WAR SERVICES.

On 1st November 1871 was deputed on special service with right column, Lushai Expeditionary Force; received a medal and the thanks of the Government of India; served a second year in the Lushai country with Major Lewin, Political Officer, and connected the work done by the survey officers attached to the right and left columns of the Lushai Expeditionary Force.

## MR. EDWIN JAMES JACKSON, Assistant Superintendent.

Annived in the country, 26th June 1864; joined the Department as Senior Sub-Assistant Revenue Surveyor, 26th September 1864; Probationary Assistant Superintendent, 1st April 1866; Assistant Superintendent, 2nd grade, 5th November 1868; sick leave from 4th July to 3rd August 1867; sick leave from 19th August to 30th November 1867; sick leave to Europe from 23rd July 1871 to 10th November 1872; in temporary charge of the 2nd Division Revenue Survey (Assam), 20th January to 13th February 1873, or about January 1873; special duty, defined the Naga Frontier Boundary common to District Sibsagur, from December 1873 to May 1874; Cachar Tea Grants Survey from 28th November 1874 to April 1875; relaying the old boundaries to the North-West of Faridpur, which had been washed away by the River Ganges during the past 20 years; employed on this work from February 1877 to April 1877; transferred to 5th Division Survey from 1st July 1877; on furlough from 1st May 1880 to 3rd December 1881; transferred to No. 2 Party, Hanthawaddy District, British Burma.

#### MR. W. G. BEVERLEY, Assistant Superintendent.

APPOINTED to the Great Trigonometrical Survey Department as 3rd class Sub-Assistant on 1st January 1855; served two months in the Drawing Office at Calcutta, and transferred to the Computing Office, Mussoorie; posted to the Kashmir Series on 1st January 1856, and continued in it to September 1863; while in the Kashmir Party, assisted in the Observatory; fixed points in the valley for topographical work, and carried the Upper and Lower Jhelum triangulation, the Dras and Sooroo, the Astor, and Upper Indus minor triangulations; transferred to the East Calcutta Longitudinal Series from October 1863, and employed on the approximate work of that party; transferred to the Kumaon and Garhwal Party from October 1864, and employed on it on minor triangulation to July 1866; on sick leave to Europe from 3rd August 1866 to 22nd July 1868; on return from leave, rejoined the Kumaon and Garhwal Party, and continued in it on minor triangulation to October 1870; appointed to charge of the Brahmaputtra Party and employed on the approximate work; also received charge of the Assam Valley triangulation in September 1871; made over charge of the Brahmaputra Series in May 1872 and of the Assam Valley triangulation in October 1874, and transferred to charge of the Burma Party in the same month; on furlough from 18th May 1877; resumed charge of the Burma Party on return from furlough on 15th October 1878.

Abstract showing the steps obtained by MB. W. G. BEVERLEY while in the Survey Department.

Appointed 3rd class Sub-Assistant on 1st January 1855; promoted to 2nd class Sub-Assistant on 1st October 1856; promoted to 1st class Sub-Assistant on 1st November 1858; promoted to Scnior Sub-Assistant on 1st November 1859; [promoted to Civil 2nd Assistant, Junior Grade, on 1st March 1861; promoted to Civil 2nd Assistant, Senior Grade, on 19th September 1864; appointed on re-organization of Department, in April 1866,

Civil Assistant, 3rd grade, and appointed to Civil Assistant, 2nd grade, from 1st October 1866; promoted to Civil Assistant, 1st grade (Surveyor, 1st grade), 1st October 1868; entered Senior Department as Assistant Superintendent, 2nd grade, 1st April 1871]; Officiating Assistant Superintendent, 1st grade, 10th March 1873; on furlough from 30th May 1877 to 3rd October 1878; on amalgamation appointed Assistant Superintendent, 3rd grade, 1st January 1878; Officiating Assistant Superintendent, 2nd grade, 3rd October 1878.

## CAPTAIN H. J. HARMAN, Royal Engineers (Bengal), Assistant Superintendent.

Joined the Corps of Royal Engineers as Lieutenant on the 7th July 1869; remained under instruction at the School of Military Engineering, Chatham, until September 1871; sailed for India to join the Bengal Sappers and Miners at Roorkee in December 1871; Inded in India on the 26th December 1871; served with the Bengal Sappers and Miners at Roorkee until June 1872; joined the Survey Department, Great Trigonometrical Survey Branch, at Mussooree as Assistant Superintendent, 2nd grade, under the organisation of 1866, on 3rd June 1872; attached to the Computing Office for five weeks, and then to the Kumaon and Gurhwal Survey Party, Great Trigonometrical Survey Branch, under Lieutenant Hill, R. E.; until June 1873 employed in topographical survey work in the hills and plains of the Kumaon and Garhwal Districts; in June 1873 went to Bangalore, Mysore, and took over charge from Captain Herschel, R. E., of No. 1 Extra Party, Captain Herschel going on furlough; during the field season of 1873-74 carried a line of principal levels from Guti, in the Madras Presidency, through Bellary to the port of Karwar on the Bombay Coast; on 1st April 1874 became Assistant Superintendent, 3rd grade, under the new organisation of that date, and has since officiated in the 2nd grade up to date; in September 1874 gave over the charge at Bangalore of No. 1 Extra Party, and went to Shillong, Assam, to take over charge of the "Assam Valley Series" on the transfer to "Burma" of W. G. Beverley, Esq.; during the field season of 1874-75 was attached to Major H. H. Godwin-Austen, Survey Department; during the Dafa Expedition carried the Assam Valley Series from Sibsagar to Sadiya and to two points beyond Sadiya; during the field season of 1877-78 accompanied Lieutenant Woodthorpe, R. E., during the survey of the Miri Hills, north of the valley of Assam; in May 1878, having completed the Assam Valley triangulation, took the party to Darjeeling, Bengal, with the view of making a topographical survey of Independent Sikhim, but the party has since been

#### WAR SERVICES.

Served with the Dafla Field Force in 1874-75.

## CAPTAIN GERALD WARD MARTIN, Bengal Staff Corps, Assistant Superintendent.

OBTAINED commission by competition without purchase at the Royal Military College, Sandhurst; gazetted as Eusign to and joined Her Majesty's 88th Regiment of Foot (the Connaught Rangers) on the 22nd June 1867, and remained on the strength of that regiment until appointed to the Bengal Staff Corps; joined the Thomason Civil Engineering College, Roorkee, on the 1st November 1869; obtained the Government College certificate as Civil Engineer, and first prize for photography, November 1st, 1870; passed the Higher Standard in the Native languages; appointed Probationary Assistant Superintendent of Survey on the 24th March 1871; date of commission as Lieutenant and admission to the Bengal Staff Corps, 24th March 1871; joined the 1st Division, Lower Provinces, Revenue Survey in Lower Assam, on the 19th April 1871; transferred to 2nd Division, Lower Provinces, Upper Assam, 15th November 1871; while at work, surveying on the banks of the Brahmaputra, was tossed and severely gored by a wild buffalo on the 15th February 1872, and was consequently disabled for some months; appointed permanently Assistant Superintendent of Survey, 3rd grade, on the 17th January 1873; transferred to the 1st Division, Decean Topographical Survey, on the 1st February 1873; took over charge of that party from 29th May 1874 to 28th August 1874; again had charge of the same party from 29th March 1875 to 14th November 1877; was on leave on urgent private affairs "without pay" from the 15th November 1875 to 14th November 1877; was on leave on urgent private affairs "without pay" from the 15th November 1875 to 16th 30th January 1878; while at home passed the necessary examination to qualify as Chemist and Assay Master of the Indian Mints and worked in the Royal Mint, Loudon, and obtained a certificate from Mr. Chandler Roberts, F. n. s., &c., Chemist of the Royal Mint, Loudon, and obtained a certificate from Mr. Chandler Roberts, F. n. s., &c., Chemist of the Royal Mint, toudon, and obtained a certificate for the Revenue Branch of the Survey of Indi

## WAR SERVICES.

Served as Assistant Superintendent, Survey of India, with the Kuram Column of the Afghanistan Expeditionary Force under General Roberts, from 26th February 1879 till the 3rd August 1879, and from 22nd September 1879 to 28th August 1880.

## CAPTAIN ALEXANDER JAMES CORSE SCOTT, Bengal Staff Corps, Assistant Superintendent.

Joined the service as Ensign in Her Majesty's 79th Cameron Highlanders on the 26th January 1866; arrived in India on the 25th June 1866; appointed a Probationer to the Bengal Staff Corps and 2nd Wing Subaltorn, 45th Sikhs, on the 13th May 1869; promoted to Licutenant in the Bengal Staff Corps on the 14th December 1869; appointed Probationary Assistant Superintendent, Revenue Survey, on the 17th January 1872; confirmed as Assistant Superintendent on the 17th January 1873; furlough to Europe on the 14th July 1874; returned to India and landed on 6th April 1876; promoted to Captain on the 26th January 1878; furlough to Europe on medical certificate from 21st April 1879.

WAR SERVICES.

# CAPTAIN St. GEORGE CORBET GORE, Royal Engineers (Bengal), Assistant Superintendent.

Joined the service, 8th January 1870; arrived in India, 15th November 1872; appointed Assistant Superintendent, 2nd grade, Great Trigonometrical Survey of India, 25th March 1873; joined the Great Trigonometrical Survey at Dehra Dun on 11th April 1873; Officiating Assistant Superintendent, 1st grade, from 2nd November 1873; by consolidation scheme of 1st April 1874 became Assistant Superintendent, 3rd grade, officiating 2nd grade; reverted to 3rd grade from 28th October 1874; officiating 2nd grade from 4th January 1875; transferred to Topographical Department for work, 15th October 1875; transferred to Guzerat party, Great Trigonometrical Survey, 5th January 1878; appointed to officiate in charge Guzerat party, 2nd September 1878; relieved of the charge of Guzerat party, October 1878; ordered on service to Afghanistan, 3rd January 1879; reverted to Assistant Superintendent, 3rd grade, 26th April 1879; Officiating Assistant Superintendent, 2nd grade, 16th July 1879; Iurlough to Europe for two years from 11th December 1880. Promoted to Cantain, 18th December 1881. to Captain, 18th December 1881.

#### WAR SERVICES.

Served with the Afghanistan Field Force, Quetta Column, from 9th February 1879 to 15th May 1880; present at the action of Ahmed Khel, near Ghuzni, and of Urzu Shabiz at Ghuzni.

#### MB. EDWARD C. RYALL, Assistant Superintendent.

APPOINTED Apprentice Drastsman, Surveyor General's Office, Calcutta, 11th August 1954, and to the Great Trigonometrical Survey, Department as 3rd class Sub-Assistant, Great Trigonometrical Survey, on 26th April 1855, and posted to head quarters office, Debra Dun; subsequently on October 1st of the same year was attached to the Rahoon Meridional Series; on 1st October 1856, 2nd class Sub-Assistant, transferred to the Jhelum and Rawul Pindi Topographical Survey Party; served with that party up to May 1859; during the recess seasons of 1858 and 1859 of the Jhelum and Rawul Pindi Party was deputed to do field duty with the Kashmir Survey; January 1st, 1860, promoted to 1st class Sub-Assistant; transferred to the Kashmir Survey in June 1859; served with that survey up to 1st October 1864, and was then transferred to the East Calcutta Longitudinal series; on November 1st, 1865, was posted to the Eastern Frontier Series Party; sick leave from 25th January to 7th September 1866; on return from sick leave was appointed to the Kumaon and Garhwal Topographical Party from 1st May 1867; assisted that party in the large scale surveys of Mussooree, Ranikhet and Kosi Valley, and subsequently in the survey of the Dehra Dun District; appointed to take charge of the Kumaon and Garhwal Party in March 1875; brought the field operations of that party to a close in September 1877; was relieved of the charge of that party on 1st October 1878, and for a short time posted to Surveyor General's Field head quarters office, Dehra Dun; on the 1st January 1879 was transferred to the 3rd Division, North-Western Provinces Survey, Revenue Branch. Military service—As volunteer during the mutiny; served against the Murree rebels (medal).

## Abstract showing the steps obtained by Mr. E. C. RYALL while in the Survey Department.

Appointed 3rd class Sub-Assistant, 26th April 1855; 2nd class Sub-Assistant, 1st October 1856; 1st class Sub-Assistant, 1st January 1860; Junior Civil 2nd Assistant, 1st July 1862; Senior Civil 2nd Assistant, 1st January 1863; Survevor, 2nd grade, 1st April 1869; Surveyor, 1st grade, 1st April 1871; Assistant Superintendent, 2nd grade (subsequently on 1st April 1874 designated 3rd grade), 1st April 1873; Officiating Assistant Superintendent, 2nd grade, 7th September 1879; reverted to 3rd grade on 9th October 1879; Officiating Assistant Superintendent, 2nd grade, from 1st November 1879.

## CAPTAIN JAMES RAMSAY HOBDAY, Bengal Staff Corps, Assistant Superintendent.

ENSIGN, 2-25th King's Own Borderers, 13th January 1869—G. O. C. C., 3rd March 1869, p. 88; date of arrival in India, 31st March 1869; 2nd Wing Subaltern on probation, 38th Regiment, Bengal Infantry, 28th March 1871—G. O. C. C., 4th April 1871, p. 165; 1st Wing Subaltern on probation, 38th Regiment, Bengal Infantry, 6th May 1871—G. O. C. C., 16th May 1871, p. 242; officiated Wing Officer, 38th Regiment, Bengal Infantry, in addition to his other duties, from 21st November 1872 to 5th January 1873—G. O. C. C., 19th December 1872, p. 609; Station Staff Officer, Buxa, Bhootan, 16th March 1873 to 18th September 1874—G. O. C. C., 5th April 1873, p. 170; officiated Wing Officer, 38th Regiment, Bengal Infantry, in addition to his other duties, from 6th April 1873 to 27th June 1873—G. O. C. C., 9th July 1873; Assistant Superintendent, 3rd grade (on probation), Topographical Survey Department, 11th September 1874—Revenue, Agriculture and Commerce Department, 7th July 1875—Revenue, Agriculture and Commerce Department, 7th July 1875—Revenue, Agriculture and Commerce Department, 7th July 1875—Revenue, Agriculture and Commerce Department No. 505 of 19th July 1875; officiated Assistant Superintendent, 2nd grade, Survey of India, from 1st to 10th January 1878, 1st to 5th February 1878, 15th February to 28th April 1878, 15th January 1879 to 3rd February 1879, and from 3rd April 1881 to the present time; promoted to the rank of Captain, 13th January 1881.

## GENERAL LEAVE.

From 12th July 1873 to 17th November 1873-G. O. C. C., 16th August 1873, p. 330, and G. O. C. C., 23rd December 1873, p. 559.

#### FURLOUGH.

Two years under rules of 1868 on private affairs—G. G. O., No. 261 of 22nd March 1878; date of leaving Bombay, 29th April 1878; received telegram to join Afghan Field Force, Quetta Column, 15th December 1878; left England, 25th December 1878; arrived at Bombay, 15th January 1879; on medical certificate for one year from 1st December 1879; extended for 120 days.

#### WAR SERVICES.

Served with Kandahar Field Force, Southern Afghanistan, from 13th February to 31st October 1879.

LIEUTENANT THE HONOUBABLE MILO GEORGE TALBOT, Royal Engineers (Bengal), Supernumerary

Assistant Superintendent, 3rd grade, Survey of India.

LIEUTENANT, 29th April 1873; appointed to India Establishment, 1st September 1876; arrived in India, 7th November 1876; appointed Supernumerary Assistant Superintendent, 3rd grade, Survey of India, 15th March 1880.

## WAR SERVICES.

Assistant Field Engineer, Jowaki Expedition, 1877-78; attached to 3rd Company, Bengal Sappers and Miners, 1st Afghan Campaign, November 1878 to conclusion of peace; took part in operations at Ali Masjid, 2nd Afghan Campaign, with General Roberts Force from commencement; present at battle of Churasia, 8th October 1879; of Lataband in December 1879; Assistant Field Engineer up to 14th March 1880; marched with the Force under Sir Frederick Roberts from Kabul to Kandahar.

LIEUTENANT FRANCIS BACON LONGE, Royal Engineers (Bengal), Supernumerary Assistant Superintendent, 3rd grade, Survey of India.

LIEUTENANT, 2nd February 1876; appointed to India Establishment, 1st November 1878; arrived in India, 15th January 1879; appointed Supernumerary Assistant Superintendent, 3rd grade, Survey of India, 15th March 1880.

#### WAR SERVICES.

Assistant Field Engineer, Afghan Field Force, Kabul Division, up to 14th March 1880; marched with the Force under Sir Frederick Roberts from Kabul to Kandahar.

# Statements of Services of Geological Survey Officers.

## MR. HENRY BENEDICT MEDLICOTT, M.A., F.B.S., F.G.S.

ENGAGED by Dr. Oldham from the Geological Survey of Great Britain; joined appointment in India on 24th March 1854; in August 1854 appointed by Court of Directors as Professor of Geology, Roorkee College; re-attached to Geological Survey for the field-scason; 1854-55, Narbada Valley; 1855-56, Sub-Himalayas; 1856-57, Bundelkhand; 1857 to 1862, Sub-Himalayas; in October 1862 left Roorkee and re-joined the Geological Survey as Deputy Superintendent for Bengal; 1862-63, South Rewah; 1863-64, Behar; 1864-65, Assam; officiated as Superintendent from 21st August 1864 to 13th November 1864; leave on private affairs from 10th May to 9th November 1865; 1865-66, Central India and Rajputana; 1866-67, Chota Nagpur, Chhattisgarh, Sumbalpur; placed in the 1st grade on the introduction of grading in May 1866; 1867-68, Garo Hills; 1868-69, Hazaribagh, Sirgujah, Sobagpur, Chanda, Mohpani; 1869-70, Satpuras; 1870-71, Bundelkhand, Narbada Valley; officiated as Superintendent from 20th July to 5th September 1870; sick leave, 13th June to 2nd December 1871; 1871 to 1873, Satpuras; officiated as Superintendent from 16th July 1873 to 15th December 1874; 1873-74, Garo Hills; 1874-75, Betul coal-field, Nimar, Nepal; 1875-76, Nimar, Jamu Hills; appointed Superintendent on 1st April 1876; 1876-77, Mohpani and Satpura coal-borings; 1877-78, Reh Committee, and Naban; 1878-79, office, Calcutta; 1879-80, office, Calcutta; 1880-81, Nahan, and office, Calcutta. Calcutta.

## MR. WILLIAM THOMAS BLANFORD, A.R.S.M., F.R.S., F.G.S.

ARRIVED in the country and joined the service as Assistant on the Geological Survey, 1st October 1855; ARRIVED in the country and joined the service as Assistant on the Geological Survey, 1st October 1855; placed in charge of a party to survey the coal-field of Talchir in Orissa in 1855-56; engaged in examining the Rajmahal Hills, 1856-57; officiated as Superintendent, Geological Survey, from 18th May to 17th December 1857; Orissa, 1857-58; in charge of the survey of the Raniganj coal-field, 1858, 1859 and 1860; surveyed parts of Trichinopoly, July to September 1859; in October 1860, despatched to Burma, and placed in charge of the Geological Survey of Pegu; left on private affairs to England from 24th May to 12th November 1862; appoint-Geological Survey of Pegu; left on private affairs to England from 24th May to 12th November 1862; appointed Deputy Superintendent for Bombay, 13th November 1862; surveyed parts of Surat. Broach, Rajpipla Hills and Khandesh, 1862-63; visited Sind and Cutch, and surveyed parts of Narbada Valley below Hoshungabad, 1863-64; Baroda, Alleeragpur, Chota Udipur, &c., 1864-65; route from Poona to Nagpur and portions of Betul, Chhindwára, Nimar, &c., 1865-66; Nagpur, Chanda and Godavari Valley, 1866-67; placed in the 1st grade on the introduction of grading in May 1866; in November 1867 attached as Geologist to the Abyssinian Field Force, and accompanied the Army throughout the Campaign; engaged in working at collections and reports, 1868-69; allowed to visit England on duty from April till November; rejoined at Bombay, 8th November 1869; surveyed portions of Chanda and South-West Berar, and route from Chanda to Hazaribagh, 1869-70; Godavari Valley near Dumagudiam and Ellore, 1870-71; attached to the Perso-Baluch Boundary Commission, and accompanied it throughout Beluchistan and Persia, 1871-72; leave to Europe on medical certificate from 19th September 1872 to 18th September 1874; detained in England on duty for three months; rejoined appointment in Bombay on 17th December 1874; visited Surat to examine water-supply, then surveyed portions of Sind, 1874-75; re-visited Sind, and made two traverses of great deserts to Jodhpur and back, 1875-76; appointed Senior Deputy Superintendent, Geological Survey, 1st April 1876; Gliciated as Superintendent, Geological Survey, from 23rd June to 3rd October 1876; surveyed part of Sind, 1876-77; office, Calcutta, 1877-78; 1878-79, office, Calcutta; held charge of the current duties of the office of the Superintendent, Geological Survey, from 26th July to 18th August 1879; leave on furlough from 22nd August 1879 to 21st August 1881; attended Geological Congress at Bologna on duty in September 1881; resumed work in India on 25th October 1881 on the North-Western Frontier. resumed work in India on 25th October 1881 on the North-Western Frontier.

## Mn. WILLIAM KING, B.A. (Queen's University, Ireland).

ENGAGED in England by Dr. Oldham, and joined appointment as Assistant on the Geological Survey on 4th March 1857; in May 1858 attached to Madras Party in the Nilgiri Hills and South Arcot; 1859, Trichinopoly and Tanjore; 1860, Salem and Coimbatore; 1861, Kadapah District; 1862, North Arcot, Kadapah and Nellore, arranged the rock collections in the Madras Central Museum; 1863, Madras, North Arcot and Nellore, delivered three public lectures at Nellore on the Geology of the District; 1864, Kadapah, Bellary and Karnul Districts, delivered a course of lectures on Geology at the Civil Engineering College, Madras; 1864-65, Kadapah. Karnul and Raichur Doab; 1865-66. Kadapah and Karnul Districts; placed in the 2nd grade on the introduction of grading in May 1866; 1866-67, Bellary District; 1867, 1868 and 1869. Kadapah and Kistna Districts appointed Deputy Superintendent for Madras, 15th November 1868; furlough leave from 17th September 1860 to 16th December 1870; 1870-71, Raichur, Doab and Bhima Valley; officiated in the 1st grade from 13th June to 3rd December 1871; 1871-72, Godavari District and Nizam's Territories; discovered Singarcai coal-field; 1872-73, Godavari and Vizagapatam Districts, deputed to Vienna in joint charge of the survey collections at the Exhibition; officiated in the 1st grade from 19th September 1872 to 20th April 1875; 1873-74, Godavari and Kistna Districts; 1874-75, Wynád gold-field and Godavari Districts and Nizam's Dominious, also the Wynád gold-fields; 1880-81, Malabar Coast; furlough from 10th May 1881. gold-fields; 1880-81, Malabar Coast; furlough from 10th May 1881.

## MR. ROBERT BRUCE FOOTE, F.G.S.

ENGAGED in England for the Geological Survey; joined as Assistant on the 28th September 1858, deputed to Madras; 1859, in Trichinopoly, South Arcot and Tanjoro; 1860 and 1861, in Salem, Trichinopoly and South Arcot; dolivered a course of public lectures on Goology at the Civil Engineering College, Madras; 1862, in Salem, Coimbatore, South Arcot and Chingleput; delivered a course of public lectures on Geology in the Civil Engineering College, Madras; 1863, North Arcot, Salem, Chingleput, arranged the palaontological collections in the Madras Museum; 1804, in Chingleput and North Arcot; 1865, in Kadapah, Karnul, Nizam's Territory; 1866, in Karnul, Nellore; placed in the 2nd grade on the introduction of grading in May 1866; 1867, in Nellore, Karnul, Kistna; leave on medical certificate from 29th May 1867 to 22nd October 1868; 1868-69, in Kistna District and Nizam's Territories; 1869-70, in Bellary, Nizam's Territories, Kaladgi, Belgaum; 1871-72, in Nizam's Territories, Kaladgi, Belgaum; 1871-72, in Nizam's Territories, Kaladgi, Belgaum; 1871-72, in Nizam's Territories, Kaladgi, Belgaum; Kolhapur; 1872-73, in Bellary, Dharwar, Kaladgi, Sholapur; deputed to Vienna Exhibition in joint charge of the survey collections; officiated in the 1st grade from 16th July 1873 to 17th December 1874; 1873-74, in Kaladgi, Belgaum, Kolhapur, Dharwar; examined the Dambal gold region; 1874-75, in Nellore; 1875, 1876 and 1877, in Nellore and Kistna; promoted to the 1st grade on 1st April 1876; 1877, 1878 and 1879, Trichinopoly, Tanjore, Pudukotta, Madura; furlough from 13th May 1879 to 6th December 1880; Madura, Tinnevelly, 1880-81; officiated as Leputy Superintendent from 7th December 1880 to 13th June 1881; appointed Deputy Superintendent from 14th June 1881.

## MR. ARTHUR BEAVOR WYNNE, F.G.S.

Was appointed in England by the Secretary of State on the 16th October 1862; had been since October 1852 in the Government service in Ireland, the last seven and a half years being on the Geological Survey; joined his appointment in India on the 13th November 1862; 1862-63, in Surat and Broach Districts; 1863-64, in the Lower Narbada Valley; 1864, 1805 and 1866, in West Berar and the Deccan; leave on medical certificate from 14th April 1866 to 8th November 1867; appointed to officiate as Deputy Superintendent for Bombay from 19th November 1867 to 31st October 1869; 1867, 1868 and 1869, in Kach; passed in the vermacular on 9th November 1868; promoted to 2nd grade on 31st March 1869; 1869, 1870, 1871, 1872 and 1873, Punjab Salt Range and adjoining ground; officiated in the 1st grade from 3rd June 1873 to 15th December 1874; 1873-74. Kohat salt region; 1874-75, Western Rawal Pindi; furlough from 29th March 1875 to 25th April 1876; 1876-77, the tertiary rocks of, and adjoining, the Potwar; officiated in the 1st grade from 18th May to 24th October 1876; 1877-78, Huzara; 1878-79, Bannu; 1879-80, Upper Punjab; officiated in the 1st grade from 13th May 1879 to 2nd April 1880; officiated as Deputy Superintendent from 22nd August 1879 to 2nd April 1880; leave on medical certificate from 3rd April 1880; promoted to 1st grade from 14th June 1881.

#### MR. FREDERICK RICHARD MALLET, F.G.S.

ENGAGED by Dr. Oldham in England; joined the Geological Survey as Assistant on the 12th February 1859, and took up work in the Raniganj coal-field; 1850-60, in the Khargpur Hills; in July 1860 made a trip to Tibet by Niti; 1860-61, Upper Sone Valley; in July 1861 made an excursion in Spiti; 1861-62, on the Upper Vindhyans in Bundelkhand and Rewah; 1862-63, on the Vindhyans in Mirzapur and Shahabad Districts; 1863-64, on the Vindhyans between Rewah and Saugor; June to September 1864, worked with Dr. Stoliczka in Spiti and Rupshu; 1864-65, worked the Vindhyan boundary from Jabalpur to Barwai; from 10th May to 9th November 1865, officiated as Deputy Superintendent in Bengal; 1865-66, on the Vindhyan and crystalline rocks between Chunar and Tehri in Bundelkhand; 1866-67, through Bhurtpur, Alwar, Bundi and Guna to the Saugor District; 1867-68, the gneiss of Lower Bundelkhand; 1868-69, on the crystalline and transition rocks in the Mirzapur District; passed in the vernacular on 5th October 1869; on furlough for one year from 13th September 1869, with an extension on duty for three months and nine days to 21st December 1870; on his return journey stopped at Aden to report on the prospects of an artesian boring; 1871-72, in South Mirzapur and Rewah; officiated in the 2nd grade from 13th June to 3rd December 1871; officiated for three months as Curator of the Museum; during the recess seasons of 1871 and 1872, arranged and catalogued a large part of the mineral collections; promoted to the 2nd grade on 1st May 1872; 1872-73, on the crystalline and transition rocks of Northern Hazaribagh; recalled to arrange the mineral collection for the Vienna Exhibition; 1873-74, in the Sikkim Himalayas and Bhutan Duars; 1874, 1875 and 1876, in the Assam coal-fields; officiated in the 1st grade from 16th March to 25th April 1876; since 12th October 1876 has acted as keeper of the mineral collections, the systematic description of which involves much work in the laboratory; early in 1878 examined and reported on some coal and petroleum

#### MR. THEODORE WILLIAM HUGHES HUGHES, A.B.S.M., P.G.S.

APPOINTED in England by the Secretary of State on 16th October 1862; joined the Survey as Assistant on the 11th November 1862; 1862-63, in the Sone Valley; 1863-64, the Jherria coal-field; 1864-65, the Bokaro coal-field; 1865, 1866, 1867 and 1868, the Karanpura, Deogarh, Karharbári and Daltonganj, coal-fields; 1868, 1869, 1870 and 1871, the Wardla Valley coal-fields; passed in the vernacular on the 3rd August 1868; reported for Government, North-Western Provinces, on roofing slates for barracks, Ranikhet, 1869; reported for Government, Central Provinces, on lead ore at Sleomanabad, 1870; leave on medical certificate from 1st July 1871 to 8th November 1872; 1872-73, Bandar and Wardla coal-fields; on special duty with Mr. Bauerman, visiting the iron deposits of Central Provinces; officiated as Deputy Superintendent from 9th November 1872 to 17th December 1874; in July to September 1873 made a trip in Tibet by Niti and Milam; in October 1873 reported on the Kumaun iron ores; in November 1873 reported for the Bengal Iron Company on the Raniganj Field; 1873-74, Wardha Valley coal-field; reported for Messrs. Apcar and Company on boring sites in Birbhúm, also for Messrs. Burn and Company on the Birbhúm iron ores; 1874-75, the Pránhita and Jángaon Valleys, and the Wun coal-fields; promoted to the 2nd grade from 21st April 1875; 1875-76, the Godavari Valley; 1876-77, completed survey of the Kota-Maleri area; leave on furlough from 1st November 1877 to 14th October 1879; officiated in the 1st grade from 15th October 1879 to 6th December 1880; officiated as Deputy Superintendent from 17th March 1881.

## ME. FRANCIS FEDDEN, A.R.S.M., F.G.S.

ENGAGED in England by Dr. Oldham; joined the Survey as Assistant on the 1st October 1860; deputed to Burma; employed there until 1864; attached to the Salween surveying expedition in 1864-65; surveyed parts of Maunbhúm and Hazaribagh in 1865-66; transferred to Central Provinces in 1866-67; on private affairs leave from 4th May to 5th December 1867; engaged in the survey of Cutch in 1867, 1868 and 1869; passed in the vernacular on 26th October 1869; surveyed parts of Central Provinces, East Berar, and the Nizam's Territories in 1869, 1870, 1871, and 1872; leave on medical certificate from 26th May 1872 to 22nd January 1874; officiated in the 2nd grade from 16th July 1873 to 17th December 1874; resumed work in the Wardha coal-fields, 1874; transferred to the survey of Sind, 1874, 1875, 1876 and 1877; officiated in the 2nd grade from 1st November 1876; transferred to survey of Kattywar, 1877-78; officiated in the 2nd grade from 1st November 1877 to 23rd March 1878; promoted to 2nd grade on 24th March 1878; leave on furlough from 7th June to 20th November 1879; resumed work in Kattywar, 1878-79; officiated as Curator from 25th July 1879 to 22nd October 1880; officiated in the 1st grade from the 22nd August to the 14th October 1879, and from 3rd April to 15th October 1880; 1880-81, Kattywar.

#### MR. CHARLES AUGUSTUS HACKET.

ENGAGED in England by Dr. Oldham; joined the Geological Survey as Assistant on the 15th November 1861; 1861, 1862, and 1863, in the Sone Valley; 1864, 1865, 1866, and 1867, on the Vindhyans in Central India; 1867, 1868, and 1869, on the Vindhyans and Arvalis between Bhartpur and Neemuch; passed in the vernacular on 5th October 1869; 1869, 1870, 1871, and 1872, on the Transition and Gondwana Rocks in Jabalpur and South Rewah; 1872-73, Narsingpur and Hoshungabad; officiated in the 2nd grade from 3rd June 1873 to 15th December 1874; 1873-74, Rajputana; leave on furlough and medical certificate from 3rd August 1874 to 1st November 1875; 1875, 1876, 1877, 1878, and 1879, the Arvalis in Rajputana and Punjab; officiated in the 2nd grade from 16th March to 26th April 1876, and from 24th March 1878 to 13th June 1881; 1880-81, Rajputana, towards Neemuch and Oodeypore; promoted to 2nd grade from 14th June 1881.

## MR. RICHARD LYDEKKER, D.A.

APPOINTED by the Secretary of State in England on 5th November 1874; joined as 3rd grade Assistant on 26th November 1874; took up work on the collection of vertebrate fossils in the Museum; passed in the vernacular on 5th April 1875; 1875-76, in the Jamu Hills; June 1876 to March 1877, arranging and describing fossils in the Museum; March till October 1877, survey of Pir Punjál, Kashmir, Kishtwar and Panji; 1877-78, in the Museum; May to October 1878, survey of Tilail and Dras; 1879, 1880 and 1881, Himalayas; officiated in the 2nd grade from 5th April 1879, to 13th October 1881; promoted to the 2nd grade from 14th October 1881.

## MR. CARL LUDOLF GRIESBACH, F.G.S.

APPOINTED by the Secretary of State in England on 26th September 1878; joined as 3rd grade Assistant on 11th November 1878; took up the survey of the South Rewah coal-fields in November 1878; 1879, Himalaya; 1880, deputed to Afghanistan to report on gold at Kandahar, and petroleum at Sibi; was present at Maiwand and throughout the siege of Kandahar, having been attached to the 66th Regiment with the rank of Lieutenant; passed in the vernacular on 15th September 1880; officiated in the 2nd grade from 13th March to 7th November 1880; officiated in the 2nd grade from 17th March 1881; 1881, Kumaun and Himalayas.

#### WAR SERVICES.

On 6th March 1880 was deputed on special service under the orders of the General Commanding in Southern Afghanistan; was present at the action of Maiwand; attached to the 66th Regiment with rank of Lieutennt, Kandahar Field Force order No. 271, dated 29th July 1880, and was present throughout the siege of Kandahar; received the acknowledgments of the Government of India.

## MR. RICHARD DIXON OLDHAM, A.R.S.M.

APPOINTED in Europe by the Sceretary of State on 6th November 1879; joined as 3rd grade Assistant on 17th December 1879; took up work in the Godavari Valley; 1880-81, Jaunsur and Sirmur and Manipur; passed in the vernacular on 1st August 1881.

#### MR. PRAMATHA NATH BOSE, B.Sc. (Lond.), F.G.S.

APPOINTED in Europe by the Secretary of State on 13th May 1880; joined as 3rd grade Assistant on 30th July 1880; 1880-81, Lower Narbada Valley.

## MB. THOMAS HENRY DIGNES LATOUCHE, B.A. (Camb.)

APPOINTED in Europe by the Secretary of State on 11th October 1881; joined in India as 3rd grade Assistant on 29th November 1881; deputed to the Garo Hills.

## MR. OTTOKAR FEISTMANTEL, M.D.

APPOINTED in Europe by the Secretary of State on 5th November 1874; joined in India as 3rd grade Assistant on 25th March 1875; took up work on the plant fossils of the Gondwána formation, upon which he has been principally engaged till now; passed in the vernacular on 4th October 1875; appointed Palæontologist on 10th March 1877; in 1875, 1876, and 1877, made short excursions to the Rajmahal Hills, the Karharbári, Raniganj, and the Sátpura coal-fields; 1878, 1879, office and Karharbári coal-field; 1880-81, office and Hazaribagh, Lohardugga and Maunbhúm.

## MR. JULES SCHAUMBURG.

Joined the Survey as Chief Draughtsman on 12th April 1869; gazetted as Artist on 7th July 1874.

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