

GEODETIC SURVEY.

Reply to queries of Mr. Carpenter for a return of—1. The number of acres surveyed each year ending 31st December, 1856 to 1859 inclusive; the total cost of the field and office branches of the Survey Department during each of those years, including the trigonometrical and geodetic surveys. 2. The number of acres surveyed between the 1st January and 1st July of the present year; the total expenditure of the Survey Department during that period. 3. The number of miles of geodetic lines correctly marked and checked up to the 1st July last; the total number of miles of geodetic lines it will be necessary to mark in order to complete the geodetic survey; also, the cost of the geodetic survey up to the 1st of July last. 4. Has the geodetic system been departed from, if so, for what reason; whether contract surveys are not being let independent of, and unconnected with, the geodetic survey, and if it was not originally intended that the geodetic survey was to precede and form the basis of the contract system.

(Ordered by the Legislative Assembly to be printed, September 12, 1860.)

Question 1. Number of acres surveyed—

	A.	R.	P.
1856	840,603	0	21
1857	774,692	2	27
1858	1,079,847	0	23
1859	720,090	0	35

Question 2—

1860, from 1st January to 30th June..	280,904	3	4
	3,702,403	3	31

EXPENDITURE OF SURVEY DEPARTMENT.

	Office Branch.			Field Branch.			Contingencies.		
	£	s.	d.	£	s.	d.	£	s.	d.
1856	16,322	17	6	94,438	5	8	3,018	4	2
1857	18,833	10	2	90,508	19	9	5,924	5	5
1858	17,444	1	7	78,374	6	1	4,232	11	10
1859	16,823	11	5	71,301	18	8	6,883	15	2
1860—									
Jan. 1 to June 30)	Salaries and wages ..						33,029 16 4		
	Contingencies approximately ..						3,300 0 0		
							41,389 16 4		

Question 3. Geodetic lines—

Length of geodetic lines completed to 30th June, 1860, is about 600 miles, consisting almost entirely of standard lines, and forming the basis of a great amount of geodetic division.

It is impossible at present to state the number of miles of lines that will be required for the completion of the geodetic survey, but those already laid out form the groundwork of the survey over an important portion of the colony.

COST OF GEODETIC SURVEY.

1855	41,003	19	2
1856	5,617	1	11
1857 (to 30th June) ..	4,430	17	7
	£11,057	18	8

Question 4—

The geodetic system has not been, as a system, departed from; but contracts have been taken for the completion of existing surveys, and in places to which the geodetic survey has not yet been extended. This has been done in order to meet the requirements of the country, as it would have been exceedingly inconvenient to have waited until the tracts required for settlement had been enclosed by the geodetic lines.

These lines will, however, be speedily pushed forward to the localities let out for survey by contract.

It was originally intended that the geodetic survey lines should precede and form the basis of the contract system, but the necessity of preparing large areas for sale has compelled the

at the contract system, but the necessity of preparing large areas for sale has compelled the departure from that intention.

CHARLES W. LIGAR,

Department of Lands and Survey, Melbourne,
September 12, 1860.

secured at the rate of 10s. an acre, with compensation for improvements if the run be required for agricultural purposes before the expiry of the lease. The survey fee for 50 acres in the settled districts is £4—if in heavily timbered country, £5; for 120 acres, £11, or £13 15s.; for 640 acres, £43, or £10 3s.; and so on in proportion, according to size of section. This is by far the most liberal land system that exists in Australia at the present time.—*Lawtonian Examiner*.

PHOTOGRAPHIC GOSSIP.—In spite of the improvements which are daily taking place in the different processes on glass, the paper processes possess advantages which must ever make them preferable for some kinds of work. For photometric registration, for instance, no process has yet been devised which is at all to be compared, in cleanliness or efficiency, to the waxed-paper process. Were further proof of the value of this process required, it would be found in the fact that the identical waxed-paper process, introduced by Mr. Crookes, in 1855, at the Photometeorological Department of the Radcliffe Observatory, is still in perfect operation there, and has lately been introduced into the Kew Observatory for the purpose of fixing the images of the fluctuations rendered evident by the self-recording magnetographs. During the daily, almost hourly, experience of five years, it is not to be supposed that the operators have adhered strictly to the plan first taught them. Modifications and improvements have been introduced, and as these may prove useful to some of our readers who have not quite given up paper photography, we add an outline of some of the principal alterations which have been made in the original process. After the plain sheets of paper have been dipped into melted wax, they are removed and slightly drained. In this stage they are drenched in wax, containing far more than will ultimately be required. It is customary to utilize this excess by ironing the waxed paper between several sheets of plain paper, but when enormous quantities are required for a daily supply all the year round, some simplification of this method is advisable. The plan now adopted is to make up a pile, in which eight plain (unwaxed) sheets alternate with one waxed sheet. In this state it is to be placed between hot plates, and subjected to high pressure for several hours, when the mass of paper will be found to be completely permeated with wax. The operation is to be repeated four or five times, and the sheets being separated after cooling, will be ready for iodising. The operation of pressing is best accomplished with the paper not folded, but of the full size, as received from the maker, so that the edges which retain superfluous wax may be cut off and rejected, and the sheets then cut into pieces of the required shape.—*Photographic News*, July 13.