

TABLE OF COLOURS.
The composition of the several Rock Districts is indicated by the respective colours and letters.

MESOZOIC		CARBONIFEROUS SYSTEM		PALAEOZOIC		METAMORPHIC ROCKS	
CRETACEOUS SYSTEM		CARBONIFEROUS SYSTEM		PALAEOZOIC		METAMORPHIC ROCKS	
CRETACEOUS SYSTEM		CARBONIFEROUS SYSTEM		PALAEOZOIC		METAMORPHIC ROCKS	
Cretaceous System		Carboniferous System		Palaeozoic		Metamorphic Rocks	
Cretaceous System		Carboniferous System		Palaeozoic		Metamorphic Rocks	
Cretaceous System		Carboniferous System		Palaeozoic		Metamorphic Rocks	

GEOLOGICAL MAP

OF IRELAND

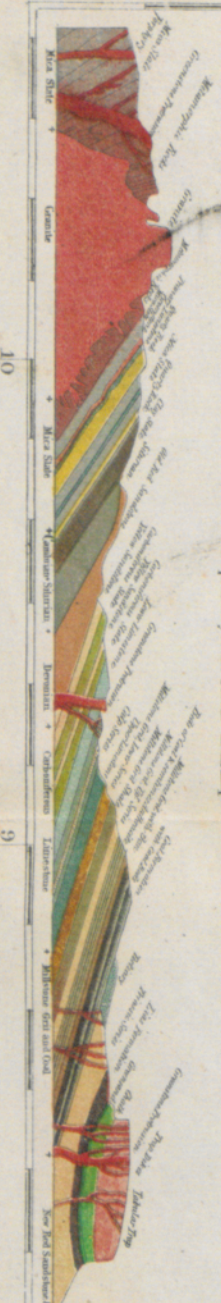
THE INSTRUCTIONS TO VALUATORS

to accompany
appointed under the 13th § 16th Vic. cap. 63.

Dublin, August 1833.



SECTION SHOWING THE RELATIVE POSITIONS OF THE SEVERAL ROCK DISTRICTS AND GROUPS



NOTE.
The colors of the rocks are intended to be as near as possible to the natural colors of the rocks, but they are not to be taken as a guide in the field.

TABLE

MOST CHARACTERISTIC FOSSILS

Rock District	Characteristic Fossils
Triassic	...
Carboniferous	...
Palaeozoic	...
Metamorphic	...

Richard Griffith

Illustrated & Printed in Colors by Forster & Co. 2, Crow

W P Coyne Esq
Mr. Farrell

INSTRUCTIONS

Per Wishes
July 1853

TO THE

VALUATORS AND SURVEYORS

APPOINTED UNDER THE 15TH AND 16TH VICT., CAP. 63,

FOR THE

UNIFORM VALUATION OF LANDS AND TENEMENTS

IN

IRELAND.



DUBLIN:
PRINTED BY ALEXANDER THOM, 87, ABBEY-STREET,
FOR HER MAJESTY'S STATIONERY OFFICE.

1853.

[COPY.]

*General Valuation Office,
2, Fitzwilliam-place, Dublin,
30th July, 1853.*

SIR,

The 8th section of the Valuation Act, 15 and 16 Vic., cap. 63, directs, that "It shall be lawful for the Lord Lieutenant to give such orders, instructions, and directions, for the conduct of the Commissioner, the Valuators, and Surveyors respectively, and for such Clerks and other persons, in the discharge of their several duties under this Act, as to such Lord Lieutenant shall from time to time seem fitting and expedient for the due execution of this Act."

I have therefore to request that you will be good enough to submit to the Lord Lieutenant the accompanying Book of Instructions, which I have prepared for the guidance of the several persons employed in connexion with the General Valuation of Ireland, with a view to obtain His Excellency's approval of the system therein laid down.

I have the honour to be, Sir, your obedient servant,

(Signed) RICHARD GRIFFITH,
Commissioner of Valuation.

*Thomas A. Larcom, Esq.,
Under Secretary, Dublin Castle.*

[COPY.]

*Dublin Castle,
4th August, 1853.*

SIR,

In compliance with the request contained in your letter of the 30th ultimo, I am directed by the Lord Lieutenant to convey His Excellency's approval of the Instruc-

tions prepared by you for the guidance of the several persons employed in connexion with the General Valuation of Ireland, in pursuance of the Act 15 and 16 Vic., cap. 63, sec. 8, a copy of which Instructions accompanied your letter above referred to.

I am, Sir, your obedient servant,

(Signed) THOMAS A. LARCOM.

*Richard Griffith, Esq.,
Commissioner of Valuation.*

INDEX.

	Page.	Par.	
INTENTION OF THE LEGISLATURE,	1	1	
EXTRACTS FROM 15 & 16 VICT. {	Scale of prices,	1	3
	Rateable Hereditaments,	3	4
	Water-power of Mills,	4	5
	Reclaimed Lands,	4	6
	Exemptions,	4	7
INSTRUCTIONS RELATIVE TO THE DUTIES IN CONNECTION WITH THE USE OF THE FIELD MAPS AND BOOKS.			
TENEMENTS,	Definition and distinction of,	6	10
	Partnership, cases of,	6	11
	Servants, portions of,	7	12
FIELD MAP,	General observations,	7	13
	Boundaries of tenements,	7	14
	When small tenements adjoin,	8	16
	Quality lots,	8	17
	Quarries, gardens, &c.,	8	18
	Rivers, Lakes,	8	19
	Use of,	8	21
NUMBERS AND LETTERS OF REFERENCE,	Two or more Estates,	9	22
	Different tenements held by the same person,	9	23
	Mountain or pasture lots,	9	24
	Detached portions,	9	25
	Cottagers'-houses and gardens,	10	26
	Quality lots,	10	27
	Islands,	10	28
FIELD BOOK, {	Names of,	10	29
	Titles of,	10	30
	In rundale,	10	32
	Rundale portions sub-let,	11	33
	For a single crop,	11	34
	Of tenements when vacant,	11	35
	IMMEDIATE LESSOR, {	Estates not sub-let,	11	36
Glebes not sub-let,	11	37	
Corporate bodies,	11	38	
Properties in Chancery,	11	39	
Of tenements exempt,	11	40	
By right of possession,	12	41	
Commons,	12	42	
DESCRIPTION OF TENEMENTS, {	Land, Buildings, Exemptions,	12	43
	Rent of Exemptions,	13	45

INSTRUCTIONS RELATIVE TO THE DUTIES IN
CONNEXION WITH THE VALUATION OF
TENEMENTS.

	Page.	Par.			
TENEMENTS,	13	46			
NATURE OF SOIL,	Descriptions comprised in,	13	46		
	Valuator to dig up soil,	13	48		
	" to make deductions,	14	49		
	Composition of soil,	14	50		
	Sub-soil,	14	51		
	Of what compounded,	14	52		
	Proportion of component parts,	14	53		
	Variations in soils,	14	54		
	Reference to Geological Map,	14	55		
	Geological arrangement,	16	58		
	Mineral composition,	17	59		
	Table of Analysis,	18	61		
	Predominant minerals,	18	62		
	Valuator to enter description,	19	64		
CLASSIFI- CATION AND DESCRIP- TION,	WITH RE- FERENCE TO COMPOSI- TION.	Argillaceous,	19	66	
		Siliceous,	21	75	
		Calcareous,	22	79	
		Peaty,	22	82	
		Table of relative productiveness	23	85	
	WITH RE- FERENCE TO VALUE.	Description of soil,	24	86	
		Indigenous plants,	25	87	
		ARABLE,	General observations	26	89
			Scale of prices,	27	91
			Table of produce,	28	95
PASTURE,	Formula for calcula- tion,	29	98		
	Scale of prices,	30	99		
	Fattening land,	31	100		
	Dairy land,	33	106		
Store pasture,	33	107			
Collops and equiva- lents,	35	111			
MEDIUM SITUA- TION,	Definition of,	35	112		
	First and second column of prices,	36	114		

VALUATION
OF
LAND,

VALUATION
OF
LAND,

	Page.	Par.		
CLIMATE,	General observations,	36	116	
	Exposed land,	37	120	
	Elevation,	37	121	
	Table of deduction for,	37	122	
	Interior of mountains,	38	123	
	Steepness,	38	125	
	Different varieties of soil,	38	126	
State of fences,	38	127		
LOCAL CIRCUM- STANCES.	MANURE,	Limestone,	39	129
		Coal and turf,	39	130
		Sea-weed,	39	131
		" Table for addition of,	40	135
		" Purchase of,	40	137
	MARKET, ETC.,	Deduction for difficulty of access,	40	138
		Table of ditto,	41	139
		Classification of towns,	42	143
		Small villages,	42	144
		Large ditto,	42	145
Market-towns,	42	146		
Cities and large ditto,	42	147		
Table of increase for vicinity,	43	148		
Judgment of valuator,	43	149		
Roads, canals, &c.,	44	151		
Reclaimed lands,	44	152		
BLEACH GREENS, &c.,	44	153		
PLANTATIONS,	How to value,	44	154	
	Nature of soil indicated by the condition of trees,	44	155	
	To be made sub-lots,	45	156	
BOGS,	As pasture,	45	158	
	Turf sold,	46	159	
	Right of cutting reserved by landlord,	46	161	
Bog or mountain grazed free,	46	162		
MINES, &c.,	46	163		
TOLLS,	47	165		
FISHERIES,	47	166		
RAILWAYS, CANALS,	47	168		
WASTE,	Cliffs, lakes, &c.,	48	170	
	Superabundant roads,	48	171	

		Page.	Par.		
VALUATION OF BUILDINGS,	HOUSES IN THE COUNTRY.	General observations,	49	172	
		House,	49	175	
		Office,	49	176	
		CLASSIFI- CATION, " Country flour-mills,	49	179	
		Classified according to struc- ture,	50	180	
		" state of repair,	50	181	
		Construction of tables,	51	184	
		MEASURE- MENT OF, Method of lettering,	51	186	
		Dimensions,	52	189	
		Basement stories,	52	190	
	HOUSES IN CITIES AND TOWNS,	Buildings of an extensive na- ture,	52	192	
		Buildings divided by Townland boundary,	52	193	
		MODIFY- ING CIRCUM- STANCES, Deficiencies,	53	195	
		Unsuitableness,	53	199	
		Tabular reduction for high amount,	54	203	
		Locality,	55	205	
		Solidity,	55	207	
		ARRANGE- MENT	Of streets,	55	210
			" measurement,	56	213
			" garrets,	56	214
" buildings in rere,	57		217		
" " in lodgings,	57		216		
COMPARA- TIVE VALUE OF	Shops,	57	218		
	Large and small houses,	57	220		
	Stores,	58	221		
GATE- WAYS,	In stores,	58	222		
	" shops and private houses,	58	223		
	" passages in common,	58	225		
	" deductions for common, &c.,	58	227		
GARDENS AND YARDS,	Quantity of land occupied by streets, &c.,	59	230		
	Timber-yards, &c.,	59	231		
	Gardens in towns,	59	233		
SCALE FOR INCREASE	Of lease rent,	60	235		
	" town houses,	61	239		
	" medium situation,	61	240		
	" front division of houses,	61	243		

		Page.	Par.	
DATA, &c., FROM MEASUREMENT OF WATER,	Estimated in horse-power,	63	245	
	For Calculation,	63	246	
	" Moduli,	64	249	
	" Formula of entry,	64	251	
	" Formula of check,	64	252	
	" Head of water,	64	260	
	VALUE OF,	So far as used,	66	262
		Horse-power,	66	263
		" Table of,	66	265
		When water is scarce,	67	267
In corn and flour-mills,		67	270	
When used with steam,	68	272		
MODIFYING CIRCUMSTANCES,	Suitableness or unsuitableness of wheel,	68	274	
	Suitable application of wheel, Suitableness of situation,	68	275	
	Vicinity of town,	69	276	
	Table of per centage for,	69	277	
	Small mills,	69	279	
	Bleach-mills,	70	280	
	DATA FOR CALCULATING FROM MACHINERY,	In Flax mills,	70	282
		" Spinning-mills,	71	284
		" Cotton-mills,	71	288
		" Bleaching-mills,	72	289
" Flour-mills,		74	301	
" " Table for,		74	301	
Formula for entry,		75	306	
Corn-mill,		77	307	
" Table for,		77	309	
Formula for entry,		77	310	
When different descriptions of Mills occur in the same locality,	79	312		

INSTRUCTIONS RELATIVE TO MISCELLANEOUS DUTIES.		Page.	Par.	
LOCAL INFORMATION, WORKING TIME, &c., &c.,	Books and maps to be prepared for inspection,	81	316	
	Notes relative to per-centages,	81	317	
	Average market prices,	81	317	
	Observations of an objectionable nature,	81	318	
	A day's work,	82	319	
	Name and date to be written,	82	320	
	Documents to be forwarded to office,	82	321	
	Reports, requisitions, stationery, &c.,	82	322	
	Progress-return form,	84	331	
	Economy to be observed,	85	333	
	Accounts to comprise the expenses of a month only,	85	334	
	Form of Pay-receipt,	85	335	
MISCELLANEOUS DUTIES.	„ Travelling expenses,	86	„	
	„ Hotel expenses,	86	„	
	„ Labour return,	87	„	
	„ Parcel and postage,	88	„	
	„ General pay return,	89	„	
	General directions,	89	336	
	County Tipperary,	90	339	
	Expenses which will not be allowed,	91	340	
	Pay to be given to labourers,	91	343	
	Place of residence,	91	345	
	FORMS,	Of Field-book,	92	-
		„ House-book,	100	-
„ Town-book,		102	-	
„ Tables for house calculation,		104	-	

GENERAL VALUATION OF IRELAND.

INSTRUCTIONS
TO
VALUATORS AND SURVEYORS*Appointed under the Act 15 & 16 Victoria, cap. 63.*

INTENTION OF THE LEGISLATURE.

1. The intention of the Legislature in passing the General Valuation Act was, that a valuation of the lands of Ireland should be made on a uniform principle and scale of prices for agricultural produce, so as to insure that the relative value of the lands within any county, though ascertained at different periods, and also that the relative value of the lands of different and distant counties, though ascertained at different and distant periods, should be the same.

2. To effect this object, the scale of prices of agricultural produce contained in the 11th Section of the Act, quoted below, is given as the standard according to which the uniform Tenement Valuation of the lands of Ireland shall be made, and all valuations must be made as if the standard prices were the prices of the several kinds of produce at the time the valuation is undertaken.

EXTRACTS FROM ACT 15 AND 16 VICTORIA.

SECTION XI.

3. In every valuation hereafter to be made, or to be carried on or completed, under the provisions of this Act, the Commissioner of Valuation shall cause every tenement, or rateable hereditament hereinafter specified to be sepa-

rately valued, and such valuation, in regard to the land, shall be made upon an estimate of the net annual value thereof, with reference to the average prices of the several articles of agricultural produce hereinafter specified; all peculiar local circumstances, in each case, being taken into consideration, and all rates, taxes, and public charges, if any (except tithe rent-charge), being paid by the tenant (that is to say)—

Per barrel.	}	Wheat, at the general average price of <i>seven shillings and six-pence</i> per hundred weight of one hundred and twelve pounds.
s. d.		
18 9		
	}	Oats, at the general average price of <i>four shillings and ten-pence</i> per hundred weight of one hundred and twelve pounds.
8 6		
	}	Barley, at the general average price of <i>five shillings and six pence</i> per hundred weight of one hundred and twelve pounds.
11 0		
Per stone.	}	Flax, at the general average price of <i>forty-nine shillings</i> per hundred weight of one hundred and twelve pounds.
6 2		
Per firkin of 67 lbs. nett.	}	Butter, at the general average price of <i>sixty-five shillings and four-pence</i> per hundred weight of one hundred and twelve pounds.
39 1		
Price for live weight*	}	Beef, at the general average price of <i>thirty-five shillings and six-pence</i> per hundred weight of one hundred and twelve pounds.
23 8		
	}	Mutton, at the general average price of <i>forty-one shillings</i> per hundred weight of one hundred and twelve pounds.
27 4		
	}	Pork, at the general average price of <i>thirty-two shillings</i> per hundred weight of one hundred and twelve pounds.
25 7		

And such valuation, in regard to houses and buildings, shall be made upon an estimate of the net annual value

* The current market prices usually quoted are understood to relate to the meat alone; butcher's profits consist in the value of the offal.

thereof; that is to say, the rent for which, one year with another, the same might, in its actual state, be reasonably expected to let from year to year, the probable average annual cost of repairs, insurance, and other expenses (if any), necessary to maintain the hereditament in its actual state, and all rates, taxes, and public charges, if any (except tithe rent-charge), being paid by the tenant.

SECTION XII.

4. For the purposes of this Act, the following hereditaments shall be deemed to be the rateable hereditaments, viz.:—All lands, buildings, and opened mines; all commons and rights of common; and all other profits to be had or received or taken out of any land; and in the case of land or buildings used exclusively for public, scientific, or charitable purposes, as hereinafter specified, half the annual rent derived by the owner or other person interested in the same, so far as the same can or may be ascertained by the said Commissioner of Valuation; and all rights of fishery; all canals, navigations, and rights of navigation; all railways and tramroads; all rights of way, and other rights or easements over land, and the tolls levied in respect of such rights and easements, and all other tolls; provided always, that no turf bog or turf bank, used for the exclusive purpose of cutting or saving turf, or for making turf mould therefrom for fuel or manure, shall be deemed rateable under this Act, unless a rent or other valuable consideration shall be payable for the same. And provided also, that no mines which have not been opened seven years before the passing of this Act, shall be deemed rateable until the term of seven years from the time of opening thereof shall have expired; and no mines hereafter to be opened shall be deemed rateable until seven years after the same shall have been opened; and mines *bona fide* reopened, after the same shall have been *bona fide* abandoned, shall be deemed an opening of mines within the meaning of this Act.

SECTION XIII.

5. For the purposes of such valuation, all mills and buildings erected for manufacturing or other purposes, together with the water-power thereof, shall be included in such valuation; provided that the water-power of any mill or manufactory be only valued so far as it may be actually used, and that such valuation shall not extend to or include the value of any machinery contained within such mill or manufactory.

SECTION XIV.

6. No hereditament or tenement shall be liable to be rated, in respect of any increase in the value thereof, arising from any drainage, reclamation, or embankment from the sea or any lake or river, or any erection of farm, outhouse, or office buildings, or any permanent agricultural improvement, as specified under the provisions of an Act passed in the Session of Parliament held in the tenth and eleventh years of the reign of Her present Majesty, chapter thirty-two, section four, made or executed thereon, within seven years next before the making of such valuation or revision.

SECTION XV.

7. In making out the lists or tables of valuation hereinafter mentioned, the Commissioner of Valuation shall distinguish all hereditaments and tenements, or portions of the same, of a public nature, or used for charitable purposes, or for the purposes of science, literature, and fine arts, as specified in an Act of the sixth and seventh years of the reign of Her present Majesty, chapter thirty-six; and the value of the same shall be deducted from the gross amount of the valuation of the hereditaments and tenements comprised in each such list or table; and all such hereditaments or tenements, or portions of the same, so distinguished and deducted, shall, for the purposes of this Act, be deemed exempt from all assessment whatsoever, so long as they shall continue to

be of a public nature, or used for the purposes aforesaid; and the lists, tables, or valuations, subject to such deduction, shall be deemed to be the lists, tables, or valuations whereby all public or local assessments shall be levied as hereinafter provided; provided always, that half the annual rent derived by the owner, or other person interested in any tenements or hereditaments so exempted, shall be included in such lists or tables, so far as the same can or may be ascertained by the said Commissioner of Valuation.

SECTION XVI.

8. For the purposes of such valuation, no hereditaments or tenements, or portions of the same, shall be deemed to be of a public nature, or used for such charitable, scientific, or other purposes, as hereinbefore specified, within the meaning of this Act, unless such hereditaments or tenements, or portions of the same respectively, shall be altogether of a public nature, or used exclusively for such charitable, scientific, or other purposes aforesaid; and the valuations or exemptions in such cases shall be subject to such and the like appeals against the same, as are hereinafter provided as to valuations in other cases.

RULES AND REGULATIONS

ACCORDING TO WHICH

THE TENEMENT VALUATION OF IRELAND IS TO
BE CONDUCTED.

INSTRUCTIONS

RELATIVE TO THE

DUTIES IN CONNEXION WITH THE USE OF FIELD
MAPS AND BOOKS.

9. The Act 15 and 16 Vict. directs that every rateable tenement or hereditament shall be separately valued. To carry out this enactment, a separate number and description is required for each tenement, together with the names of the occupier and immediate lessor, as set forth in the Schedule appended to the Act.

TENEMENTS.

10. A tenement under this Act may be defined as any rateable hereditament that may be holden or possessed for any term, tenure, or agreement, not less than from year to year. It is, therefore, obvious that one person may hold several distinct tenements, and, again, that several persons may hold one tenement. The following particulars relating to tenements will be found useful:—

If a property be held part by lease and part at will, each part forms a distinct tenement.

If two or more portions be held under two or more separate leases from one landlord, each of such portions likewise forms a separate tenement.

So also are hereditaments held under different landlords.
In general, distinct receipts on payment of rent indicate distinct tenements.

11. It frequently happens that an hereditament originally

held by one person, has been divided, or left by will, in proportions among his children, or among others, and that one or more of them may have subdivided it. Such divisions and sub-divisions are oftentimes exceedingly complex, and should be treated as one tenement, unless the divisions be well and clearly defined, and are of a simple character.

12. *When a servant, steward, gardener, herdsman, or labourer, occupies premises under his master, as appertaining to his place, for the time being, such premises are to be considered as in the occupation of his master.*

FIELD MAP.

13. The principle of distinguishing tenements being clearly understood, the Surveyor or Valuator who may be employed should mark on his Field Map, as directed in paragraph 15, &c., every tenement in the townland under consideration; and to each tenement he shall affix such numbers or letters of reference as may be necessary (par. 22).

14. Great care should be taken in marking the boundaries of tenements, as the correctness of the area of each will be dependent on the accuracy of the boundaries as laid down. The tenement boundaries will usually be found to coincide with the principal field fences shown on the Ordnance plan; but in many cases, owing to recent alterations, the engraved lines will not correspond with the tenement boundary. Under such circumstances, the new boundary may, in most cases, be accurately laid down from intersections from known points, or by the production of lines from objects represented on the Ordnance plan; but, in cases of difficulty, they must be laid down from actual measurements.

15. *Tenements of an acre in area* and upwards should have their boundaries marked on the Ordnance plan; those less than an acre cannot easily be shown distinctly, and should therefore be added to the lots respectively which they happen to adjoin, or of which they form a portion sub-let.

16. *When several small tenements adjoin each other, and form an area sufficient to bear a distinct number, they may be included within one boundary, and receive a number; but the positions of the several portions should be marked by italic reference letters, and an enlarged sketch given on the margin of the Field or House Book.*

17. *The sub-divisions of a tenement for valuation or other purposes, are called quality or sub-lots.*

18. *Quarries, gardens, orchards, &c., (par. 43), which form portions of tenements, should bear italic letters to mark their position, or when sufficiently large, should be made into sub-lots; those not already marked should be laid down on the map, and those which have ceased to exist should be crossed out. These observations apply also to houses.*

19. It should, in all cases, be ascertained with respect to roads and rivers, whether or not the centres be the boundaries of the farms which they adjoin.

Where the areas of rivers or lakes, or portions of them, are returned on the Ordnance plan separately from the content of the townland, such portions as are comprised within the limits of a tenement are to be given as sub-lots.

20. It will be necessary to write the name on the portion of any townland contained on any Ordnance sheet on which such name shall not have been engraved.

FIELD BOOK.

21. The valuator or surveyor is to enter in the Field Book a description of every tenement in the townland under consideration; also the name or names of the occupier and lessor, together with reference numbers and letters to the Ordnance sheet on which it has been shown. It is necessary to bear in mind that the Field Book should be made out with the utmost precision; the notes should be clear and adequate; the reference letters and numbers should correspond with those on the map; each page

should be headed with the name of the county, barony, and parish; under the name of the townland, should be the number of the Ordnance sheet or sheets in which it is contained; and when there are two or more, that on which the townland name commences should have precedence. The particulars which it will be necessary to observe are arranged under the following headings, which correspond respectively with those in the Field Book.

NUMBERS AND LETTERS OF REFERENCE.

22. *When a townland is held by two or more proprietors, the respective tenements of each proprietor should be numbered consecutively; but when the same person occupies land under different landlords in the same townland, a note of reference should be made in the Field Book, stating such to be the case.*

23. *All the tenements held by the same person from the same landlord should be numbered consecutively, and a note should be made in the Field Book specifying those held under different tenures.*

24. In some districts it frequently occurs that a townland is let in several distinct farms, with a tract of mountain or pasture attached, which is grazed in common, such portion should be marked as a separate tenement, and the farms which are held separately should be numbered first, then the lot which is held conjointly.

25. *A tenement, whether held by an individual or in partnership, is frequently made up of detached portions; in such cases the several parts or portions are to be numbered consecutively, as 5, 6, 7, &c.; and in entering them into the Field Book, they must be placed before any cottager's portion which may be comprised within their respective boundaries; the cottagers' portions, however, should be distinguished in every instance by prefixing the number of the lot respectively to which they belong.—(Form of Field Book, page 92.)*

26. *When cottagers' houses and gardens are included*

within the limits of a farm, the farmer's house and offices should have the italic letter *a* prefixed to the number of the lot in which it is situated; the cottagers' *b, c, &c.*; when they occur in a detached portion of a farm, they are to be distinguished within each detached portion, as if such were a distinct farm, the first house in each being distinguished by prefixing the italic letter *a*.

27. *Where more than one original quality lot*, or where portions of such are comprised in a tenement, they should be distinguished separately on the plan and in the Field Book, by affixing the tenement number to each, with the addition of a small index figure, as 1¹, 1², 2¹, 2², 2³, &c., entering at the same time the number of the original quality lot shown on the examples appended.

28. *Islands* which have their area engraved on the Ordnance plan are to be numbered consecutively and independently of the townlands which they happen to adjoin, and should be entered in the Field Book at the end of the parishes respectively to which they belong.

OCCUPIERS.

29. *The Christian and surname of the occupier* should be entered in every instance, and should never be written in a contracted form.

30. *Gentlemen of property*, learning, or the law, should have Esquire annexed to their names; ladies of the like rank, Mrs. or Miss. Gentlemen in the profession of physic, Doctor, or M.D. Knights, Baronets, &c., should have their proper titles.

31. It is a frequent occurrence that two or more persons in a townland have the same Christian and surname; in such cases it will be necessary to obtain an agnomen [*as Farmer*].

32. *In every case of rundale holding*, the names of the several persons who occupy the tenement, and the fraction or proportion of the whole held by each, should be ascertained and entered.

33. *When a person who holds jointly with others sublets*, the portion so let, if it have a defined boundary, should bear a number or letter, and a note stating that its value is to be deducted from that of the proportion of the person from whom it is held; if there be no defined boundary, the note should state what fractional part of the proportion has been sublet.

34. *When Tenements are let for a single crop or for short periods* to a succession of persons, as dairy grazing lands, &c., the immediate lessor should, in such cases, be entered as the occupier; and for any house let in separate apartments or lodgings, the immediate lessor is to be entered as the occupier, with the observation, "in lodgings."

If an occupier in one townland reside in another, a note should be entered to that effect.

35. *If a farm with farm-house be unoccupied*, the immediate lessor is to be entered as the occupier of the land, but the farm-house should be entered on a separate line as "unoccupied."

LESSOR.

36. *All real estates or freeholds of inheritance* should be described "as in fee;" in estates less than freehold, the name of the *immediate lessor* should be ascertained and returned.

37. *The tenure of the rector* or incumbent of a parish, in the cases of church or glebe lands, should be described as "freehold."

38. *Companies, corporate bodies, &c.*, frequently appear as lessors, such as the Drogheda Railway Company, Board of Customs, Provost and Fellows of Trinity College, &c.

39. *In the case of an estate in Chancery*, the name of the reputed proprietor should be entered as the immediate lessor, with the words "in Chancery" annexed.

40. *The lessors of land* upon which buildings for public, religious, or charitable purposes have been erected, or of any other tenements, although included in the class of exemptions, should be ascertained and entered.

41. *Persons who hold by right of possession*, and recognise no landlord, their tenure should be entered as *free*.

42. *Townlands recognised as commons*, and for which there is no mediate lessor, the word "common" should appear in the column headed "immediate lessor."

DESCRIPTION OF TENEMENT.

43. The several descriptions of hereditaments referred to in the XII., XIII., XIV., & XV. sections of the Act, or which should have a description in the Field Book, may be enumerated as follows:—

LAND.	EXEMPTIONS.	BUILDINGS.	
Bleachgreens.	<i>Burial grounds ; ordnance ground ; dock yards ; charitable school, church, and bar- rack yards ; land attached by deed to charitable schools or institutions.</i>	<i>Asylums and alms- houses ; military and waterguard barracks, police stations ; houses of worship ; dis- pensaries and hos- pitals ; literary and scientific so- cieties' buildings ; houses of correc- tion ; workhouses ; charitable schools, sessions, and court houses ; exchanges ; mayorally houses ; stalls or market places for which no rent or custom is paid to private individuals ; cus- tom houses, excise houses, light hous- es, offices, stores, and vaults, belong- ing to the Crown.</i>	
Bogs and Tur- bary.			Ball-courts.
Brickfields.			Baths.
Coal and Culm pits.			Distilleries,
Mines, as Cop- per, &c.			Breweries, &c.
Fair-greens.			Factories and mills.
Orchards.			Gas works.
Osieries.			Hotels.
Plantations.			Landing quays.
Potteries and tileries.			Limekilns.
Quarries.			Market stalls.
Railways.			Pounds.
Ropewalks.			Shops, &c.
Yards, such as for coals, flags, and timber.			Standhouses.
			Tanneries.
			Weigh-houses and scales.
Canals and water works.			
Ferries.			
Inland fisheries, as weirs, nets, &c.			
Ocean fisheries, as oyster-beds, &c.			
Tolls of roads, bridges, fairs, markets in towns, &c.			
Rents of hereditaments, the valuation of which is exempt from rating.			

44. *Ground used for agricultural purposes merely*, may be described as land ; buildings used for residences only, as

house and offices. Any other tenements should be more particularly described, as "Brick-field," "Brewery," &c.

45. *Persons receiving Rent in respect of Hereditaments exempt from rating*. It is to be observed that rates are payable on the valuation of tenements rateable to the relief of the poor, in part by the landlord, and in part by the tenant, except in the cases of Exemptions, in which rates are payable on the rent derived thereout, and by the landlord only ; hence under the description of the exemption should be entered half the rent reserved, if any. (Example page 98.)

INSTRUCTIONS

RELATIVE TO THE

DUTIES IN CONNEXION WITH THE VALUATION OF TENEMENTS.

46. A tenement frequently consists of one or more of the descriptions enumerated in Section 43, together with land used for agricultural purposes. It is necessary, in conformity with the Act, to ascertain and enter, in such cases, the value of the land separately from that of the buildings, &c. It is, however, to be borne in mind, that the total valuation of land and buildings, exclusive of taxes, should not exceed the fair letting value to a solvent tenant.

47. In determining the value of land, the valuator should pay particular attention to its geological and geographical positions, so far as may be necessary to develop the natural and relative powers of the soil.

NATURE OF SOILS.

48. The valuator should carefully examine the land by digging up the surface, as the quality of the soil and subsoil should have considerable influence in determining his judgment of its actual capabilities ; for if guided by the appearance of the crops, he may frequently put a high price on bad land, highly

manured; this would be unjust, as it is the intrinsic and not the temporary value of the land which is to be ascertained.

49. When the nature or composition of the soil differs considerably in very short distances, it will insure greater accuracy to price such portions separately; therefore deductions should be made of those portions which are better or worse than that which composes the larger part of the lot.

50. The value of soil is dependent, in the first instance, on its composition and the nature of its subsoil.

51. *Subsoil* may be considered the regulator or governor of the powers of the soil, for the nature of its constitution considerably promotes or retards vegetation:—thus, if it be too porous or sandy, the nutriment necessary for plants is washed away; if clayey and impervious, the active soil is cold and late, and produces plants naturally aquatic. To the nature of the subsoil the valuator should direct particular attention.

52. *Soils are compounded* of organic and inorganic matter. The former derived from inferior vegetable or animal substances; the latter from the disintegration and decomposition of rocks.

53. *The proportions* in which these materials exist are of considerable importance. A good soil may contain from six to ten per cent. of organic matter; the remainder should have its greater portion silica; the lesser, alumina, lime, the alkalies, &c. (*par.* 61.)

54. Soils, however, vary considerably, and in a great measure with relation to the physical aspect of the country:—thus, in mountain districts where the rocks are exposed to atmospheric action, the soil consists chiefly of the disintegrated substance of the rock; whilst the surface of the plain is usually composed of drifted materials foreign to the subjacent rock. In the former case, the soil is characterised by the rock of the locality; in the latter, it does not necessarily participate in its nature.

55. *By reference to the annexed geological map of Ire-*

land it will be seen that the mountain soils are referable generally to the granite, schistose rocks, and sandstone,

56. The fertility of soil is, to some extent, dependent on the proportions which exist between the component minerals of the rock from which it may have been formed; thus, granite in which felspar is in excess, when disintegrated, usually forms a deep and easily improved soil, whilst that in which it is deficient will be comparatively unproductive. The detritus of mica slate, and the schistose rocks, usually form moderately friable soils, applicable to tillage and pasture. Soils derived from sandstone are generally poor.

57. The most productive lands in Ireland are situate in the carboniferous limestone plain, which, as shown on the Geological Map, occupies nearly two-thirds of this country; but, when to the naturally fertile calcareous soils of this great district foreign matters are added, derived from the disintegration of granitic and trappean igneous rocks, as well as from mica slate, clay slate, and other sedimentary rocks, soils of an unusually fertile character are produced. Thus the proverbially rich soil of the Golden Vale, situate in the limestone district, extending between Limerick and Tipperary, is the result of the intermixture of disintegrated trap derived from the numerous igneous protrusions which are dispersed through that district with the calcareous soil of the valley. The site of these trappean hills is represented on the Geological Map by a dark red tint.

Lands of superior fertility frequently occur near the contacts of the upper series of the carboniferous limestone and the shales of the millstone grit, or lower coal series; important examples of this kind will be found in the valley of the rivers Barrow and Nore, extending from Stradbally, in the Queen's County, by Carlow, to Kilkenny, &c.; also, under similar circumstances, along the north-eastern boundary of the millstone grit district of the County of Clare, extending from the sea coast at Doolin, by Kilfenora, towards Corrofin.

But the soils derived from the disintegration of different

portions, even of the carboniferous limestone series itself, though unmixed with foreign matter, differ materially from each other. This arises from differences in the composition of different members of the series which occur in a regular order of superposition.

58. For geological arrangement, the carboniferous limestone of Ireland has been divided into four series, namely:—1st, Beginning from below, the yellow sandstone and carboniferous slate, coloured dull yellow and bluish green on the Geological Map; 2nd, The lower limestone, coloured light blue; 3rd, The calp series, coloured grayish blue; and 4th, The upper limestone, coloured dark blue.

The soil derived from the yellow sandstone and carboniferous slate series is usually cold and unproductive, excepting where beds of moderately pure limestone are interstratified with the ordinary strata, consisting of sandstone and slate, or shale.*

The lower limestone, when not covered by drift, consisting chiefly of limestone gravel intermixed with clay, usually presents a friable loam suited to the production both of cereal and green crops of all kinds; it likewise produces dairy and feeding pastures for heavy cattle, and superior sheep-walks.

The stratification of the third, or calp series, consists of alternations of dark gray shale and dark gray impure argillo siliceous limestone. The soil arising from the disintegration of these rocks is usually cold, sour, and unsuited to cereal crops; but, in many districts in which the soil is naturally dry, or which have been drained and laid down for pasture, this soil produces naturally superior feeding grasses, particularly the cocksfoot grass.

These pastures are found annually to improve in quality,

* In the counties of Waterford, Cork, and Kerry, the schistose beds, belonging to this series, present the cleavage and fissile structure of ordinary clay slate, and are sometimes quarried for roofing-slate, while, in the midland and northern counties, the schistose beds, occupying the same geological position, and containing the same fossil organic remains, assume the character of ordinary shale of the coal formation.

and, in consequence, are rarely broken up; such lands are esteemed to be the best for fattening heavy beasts.

Extensive tracts, consisting chiefly of these valuable pastures, occur in the district which extends westward from the east of the County Dublin, by Trim and Athboy, in the County of Meath, and Castletowndelvin and Mullingar, in the County of Westmeath, to Edgeworthstown, &c., in the County of Longford.—(See Geological Map.)

Fertile pasture lands, of similar quality, occur likewise in the calp district of the County of Galway, extending westward from Eyrecourt, by Ballydonnellan, towards Athenry.

The fourth series, or the upper limestone, distinguished by the dark blue colour on the Map, also produces admirable sheep pasture, and, in some localities, superior feeding grounds for heavy cattle; like the lower limestone, the soil of the upper series, when well tilled, is capable of producing every variety of cereal and green crop.

59. It is of the utmost importance that the valuator should carefully attend to the mineral composition of the soil in each case, and a reference to the Geological Map will frequently assist his judgment in this respect, the relative position of the subjacent rocks having been determined upon sectional and fossiliferous evidence. He should also carefully observe the changes in the quality and fertility of the soil near to the boundaries of different rock formations, and he should expect and look for sudden transitions from cold, sterile, clayey soils, as in the millstone grit districts, into the rich unctuous loams of the adjoining limestone districts, which usually commence close to the line of boundary; and similar rapid changes will be observed, from barrenness to fertility, along the boundaries of our granite, trap, and schistose districts, and likewise on the border of our schistose and limestone districts, the principle being, that every change in the composition of the subjacent rock tends to an alteration, beneficial or otherwise, in the quality of the subsoil, and also of the active soil.

60. As it appears from the foregoing, that the detritus of rocks enters largely into the composition of soils and other formations, the most trustworthy analysis is supplied, which, compared with those of the crops usually cultivated, will show their relative values and deficiencies :

61. TABLE OF ANALYSIS.

Subjects.	Earths.			Oxides.			Alkali. Potash and Soda.	Acids.			Chlorides, &c.			Ashes left by 100 lbs.
	Silica.	Alumina.	Lime.	Magnesia.	Iron.	Manganese.		Phosphoric.	Sulphuric.	Fluoric.	Chlorine.	Chloride of Sodium.	Phosphates.	
† ROCKS.	Quartz,	99	-	-	-	-	-	-	-	-	-	-	-	-
	Quartz Rock,	82	9	.4	-	.4	7	-	-	-	-	-	-	-
	Granite,	75	13	.4	1	.2	.1	7	-	-	2	-	-	-
	Felspar,	64	19	.7	.5	.7	13	-	-	-	-	-	-	-
	Mica,	46	26	.3	5	8	.6	10	-	1	-	-	-	-
	Mica Slate,	73	13	.2	.2	4	.3	5	-	.5	-	-	-	-
	Chlorite Slate,	64	9	.2	.7	15	.8	-	-	-	-	-	-	-
	Green Stone,	55	15	7	9	4	.1	7	-	.7	-	-	-	-
	Basalt,	53	19	5	.2	18	-	-	-	-	-	-	-	-
	Limestone,	5	7	91*	-	-	-	-	2	-	-	-	-	-
Gypsum,	-	-	32.6	-	-	-	-	16.5	-	-	-	-	-	
† MANURE.	Peat, { Upper or White,	11	3	12	-	5	-	6	-	6	-	Org. matter charred, 54.	.9	} 1.5 to 19. 1 to 5. 20 14 17
	Peat, { Lower or Black,	44	2	12	-	18	-	5	-	12	-	Do., a.	.4	
	Coal ashes,	45	44	3	3	1	-	3	-	2	-	-	-	
	Farm-yard Manure, †	66	3	9	3	3	-	8	3	2	-	6	-	
	Seaweed, { Laminaria,	7	-	8	7	7	-	17	-	12	-	-	37	
Seaweed, { Fucus,	4	-	11	10	1	-	24	-	24	-	-	20		
† PLANTS (Cultivated).	Wheat, { Grain,	1	-	3	12	.6	-	33	50	.2	-	-	-	2
	Wheat, { Straw,	65	-	7	4	1.	-	13	3	-	1.	-	-	6
	Barley, { Grain,	27	-	3	7	1	-	22	39	.1	-	.04	-	2.5
	Barley, { Straw,	70	1.	10	3	1	-	7	3	2	-	-	-	6
	Oats, { Grain,	3	-	6	10	.4	-	26	44	10.	-	.2	-	8
	Oats, { Straw,	48	-	8	4	2	-	29	2	3	-	3	-	6
	Rye, { Grain,	4	-	5	10	1	-	33	48	1	-	1	-	2
	Rye, { Straw,	64	-	9	2	1	-	18	4	1	-	1	-	4
	Flax,	25	-	14	9	7	-	24	13	3	-	3	-	5
	Meadow Hay,	38	1	23	7	1	-	19	6	2	-	2	-	6
	Beans, { Grain,	1	-	6	8	.5	-	44	38	1	-	1	-	2.5
	Beans, { Straw,	7	-	3	20	7	.2	1.55	7	1	-	2	-	6
	Peas, { Grain, . . . . .	.5	-	5	8	1	-	44	33	4	-	3	-	2.5
	Peas, { Straw,	20	-	55	7	.4	-	1.5	5	7	-	.1	-	6
	Clover, Red,	7	-	33	8	.4	-	36	8	3	-	3	-	8
	Potatoes { Tubers,	4	-	2	5	.5	-	57	13	14	-	4	-	9
	Potatoes { Tops,	4	-	17	7	1	-	44	8	7	-	12	-	18
	Turnips, { Bulb,	8	-	14	5	1	-	47	8	14	-	3	-	7
	Turnips, { Tops,	1	-	23	3	1	-	34	9	13	-	16	-	16
	Beet,	10	-	9	5	3	-	56	8	2	-	6	-	6
Cabbage, . . . . .	.7	-	21	6	.6	-	32	12	22	-	5	-	20	

62. From these tables it will not only be seen what materials rocks, plants, and animals yield for the formation of soil, but the proportions in which they should exist to

* 91 Carbonate of lime, consisting of 51 lime and 40 carbonic acid.
 † Sir H. T. De la Beche and others. ‡ Johnston. § Sir R. Kane.

meet the requirements of the plants cultivated; thus, corn and grasses have silica the predominant ingredient; the various seed or grain require phosphoric acid; lime and alkalis are necessary for the production of beans and leguminous plants; whilst turnips, beet, and potatoes, require potash and soda.

63. The soils of loamy low lands, particularly those on the margins of rivers and lakes, usually consist of finely comminuted detrital matter, derived from various rocks; such, frequently, in Ireland, contain much calcareous matter, and are very fertile when well drained and tilled. The rich low-lying lands which border the lower Shannon, &c., are alluvial and highly productive.

64. As it is necessary that the valuator should enter in his Field Books a short but accurate description of the nature of the soil and subsoil of every tenement which may come under his consideration, and that precisely the same meaning should be applied by all the valutors to the same descriptive word, the following classification has been made to render this description as uniform as possible :-

65. CLASSIFICATION OF SOILS WITH REFERENCE TO THEIR COMPOSITION.

Argillaceous or Clayey,	{ Clayey. Clayey Loam. Argillaceous Alluvial.	The colour of soils, as Yellow, Blue, Brown, or Red,
Siliceous or Sandy,	{ Sandy. Gravelly. Slaty or Rocky.	
Calcareous,	{ Limey. Limestone Gravel. Marl.	is derived from an admixture of different proportions of the oxide or rust of iron.
Peat Soil,	{ Moor. Peat.	

ARGILLACEOUS SOILS.

66. Argillaceous earths, or those in which alumina is abundant, are exemplified by brick clays and pipe clay; all soils in which alumina forms the predominant ingredient should be termed clay.