CONCLUDING REMARKS.

MIRACULOUS as many of the circumstances of the foregoing narration may appear, I have stated nothing that cannot be vouched by unquestionable authority. On the contrary, I feel conscious that all my endeavours must fail to convey any just idea of the wonders of the flood, or of the fearful nature of its devastations.

It would be improper to dismiss the subject without shortly noticing the general effects which these have produced on the ancient province of Moray, the chief theatre of their operation.* To form a just estimate of that blow which its rising prosperity has lately experienced, it is necessary to know something of its previous state, and this knowledge will be best acquired from a brief sketch of the rapid progress of its improvement since the beginning of the present century, which we may consider as the era of its commencement.

With a surface exhibiting every variety of wild and of rich scenery, and possessing an early and productive soil, Moray is blessed with a climate of greater amenity.

^{*} The ancient province of Moray is thus geographically described by old Lachlan Shaw: "This country lieth in the 57th degree of north latitude, and Speymouth is about 35 minutes east from Edinburgh. With regard to the neighbouring countries, the Moray Firth and the river Farar separate it from Ross to the north; and from Speymouth towards the south-east, the south, and south-west, it bordereth upon the Enzie, Strathdovurn, Strathdone, Braemar, Athol, Rannoch, and Lochaber."

and proverbially drier, than its mere geographical position might warrant its enjoying; and it is a well-known fact, that the crops, in its best situations, are always ready for the sickle nearly a fortnight before those of any other part of Scotland. But, at the period I speak of, with all these natural advantages, it was still many years behind the southern parts of Caledonia, so far as regarded most of those things which man could do for The great thoroughfares, though naturally firm and hard in substance, were unnecessarily winding in line, waving in level, and rough in surface—the crossroads were impassable by any wheeled carriage except the light carts of the country, rudely constructed, and altogether without iron—and with the exception of a very few bridges, there were no means of passing the many deep and rapid rivers, but by ferries and fords, always troublesome, and frequently fatal. Something, indeed, had been done to increase, by the cultivation of a few waste spots, the original quantity of the arable soil, for which Moray had been anciently celebrated. and much had been added to the extensive plantations already made. But many of the estates wore a meagre aspect; most of the mansion-houses were poor in external appearance, as well as in their internal accommodation; and although the greater part of them possessed gardens substantially valuable in produce, their environs were, with a few exceptions, utterly destitute of those ornamental accompaniments which Taste now so largely demands from Art, for the decoration of a gentleman's residence. In those times, the post from Edinburgh came only thrice a week, and took about three days and a half to effect the journey. There was no mail-coach, or public coach of any kind, to the north of Aberdeen; and two days, or more, were required for posting between Aberdeen and Forres. In short, the whole complexion and circumstances of the country were such as to show that its powers were yet asleep.

But its energies were soon awakened, and their strength and rapidity of exertion largely compensated for the length of that slumber in which they had previously indulged. Magnificent bridges were built over the Spey at Fochabers, the Findhorn near Forres, the Nairn, and other large rivers. The grand iron Bridge of Craigellachie, of 150 feet span, was projected and executed; and innumerable bridges of lesser importance were constructed. Many piers and harbours, both private and public, were formed; turnpike acts were obtained, and the country was everywhere intersected by great lines of communication; while the ancient parochial roads, hitherto little better than tortuous indications of a primitive track, worn over the undulating surface of the country, which had never been deviated from since they were first sketched by the sledges that originally discovered them, were now superseded by well-lined and well-constructed highways; and the circulation of the country being thus quickened by its own exertions, a daily post was established, which, by the gradual improvement of circumstances, ultimately reached Forres in little more than 24 hours from Edinburgh. The mail-coach ran north and south through the province, keeping up a direct line of intercourse between Dover and Wick. Two stagecoaches, one with three, and the other with four horses. passed north and south every day, Sunday excepted; *

^{*} The flood has so completely broken up the communication, that the arrangements regarding the coaches have been overthrown, and the time of the mails rendered quite precarious.

and the posting between Aberdeen and Forres soon became easily practicable in 9 or 10 hours. A corresponding improvement in the breed of draught horses, as well as the introduction of a better description of carts, were the natural consequences of these happy changes, whilst the labourers who had been employed in constructing these roads, gradually acquired a degree of knowledge and skill, which brought the art of roadmaking, and of executing all other works of the same kind, to the highest perfection. During the short period I have referred to, many wide wastes of unprofitable moorland have been divided among the conterminous proprietors who had common interest in them, and immediately cultivated or planted—extensive lakes and morasses have been drained—the sea has been excluded in some places, and rivers have been confined by expensive embankments in others—large tracts of valuable land have been reclaimed from beneath deep depositions of drifted sand, which had buried them for ages. In short, it would be no easy matter to discover a possession which had not made some considerable addition to the extent of its useful soil; while many farms, and even some estates, could be found which have doubled the quantity of their arable land; -plantations have been increased to an extent almost incredible, and the woods alone, which cover the country in a manner almost continuous, on either side of the River Findhorn, from Dulsie to the sea, are roughly calculated to amount to 16,000 or 18,000 acres; -handsome mansion-houses have been built by many proprietors, and gentlemen's residences have had all the adornment of ornamental grounds, shrubberies, walks, and drives bestowed on them, in some instances, on a scale not always to be paralleled in the more southern parts of the kingdom. But these were not all the felicitous consequences resulting from this powerful spirit of improvement; for the great mass of the farmers, rising in intelligence as well as in opulence, as they grew learned in agricultural science, and even the industrious cottagers, enabled by their increased skill in labour to earn a more regular, as well as a more liberal subsistence, began to participate in the taste which had already so widely spread itself among the higher ranks.

The face of the country was thus rapidly receiving that polished attire, which dresses Nature, without either obscuring or caricaturing her native graces, and which nothing but refined civilization knows how to It may, therefore, be easily imagined, that the ravages which it has been my unpleasant duty to record, were greatly more calamitous in their effects, when occurring in such a country, than if they had taken place, either where improvement had not yet commenced, or where the earth's surface had been long brought to a state of comparative perfection; for, in the recent case, both the subject, and the capital with which existing individuals had so recently created it, were at once annihilated. The great and expensive works forming a part of the vast arterial system of national communication—the district and parochial branches giving life and energy to every estate and every farm, many of them created by proprietors at immense cost, and, in many instances, by incurring deep pecuniary engagements—and, finally, the very extensive and dear-purchased private improvements, executed both by landlords and tenantry, have all been more or less ruined, wherever they lay within reach of the direful ravages of these floods. It is quite vain to

attempt to calculate the sum-total of damage; for the result of any calculation formed on the data which have as yet been collected, would be greatly short of the truth, and the printing of it would be only the registration of a fallacy. Every day discloses additional injuries, overlooked at first from being less obvious, but adding fearfully by their number to the weight of the mass of loss. Nowhere has any work been left perfect; for even where rivers or rills ran not in ordinary, temporary torrents were established, which tore up every thing before them, and wrought incalculable mischief, so that it was difficult to walk many yards in any direction, without beholding some of the footsteps of this, dreadful deluge. The march of amelioration over this hitherto thriving country, has thus received a severe check, and its rising prosperity has undergone a terrible prostration. Making every allowance for the advantages acquired from dear bought experience, we cannot hope that it will be restored to the same high state it stood in previous to August last, in anything like the same short space of time in which it formerly attained it, for, alas! the same means of reproduction no longer exist. In circumstances so unprecedented, therefore, the wisdom of Government would be well displayed, and its funds well appropriated, in giving aid, at least so far as to restore the more important public works, and so to heal those wounds which have a tendency to affect the national health; for it is obvious, that an interruption of free circulation cannot take place in any part of the national system, more than it can in the natural body, without more or less injuring the constitution of the whole. If patience under affliction may in any way strengthen a claim for commiseration, the suffering inhabitants of Moray may well look for sympathy; for, heavily as the dispensation has descended on people of all ranks, neither complaints nor murmurs have been heard to arise.

The operations of the flood are striking when brought singly and successively under our review; but there is an ideal survey which may yet be taken of them, that will probably appear to many as the most sublime of all. To enjoy this, let us lift ourselves, in fancy, to a height sufficiently commanding to overlook all their various actions at one glance, and let us then endeavour to imagine the effect. Behold the shortsighted emmets of the earth, drudging on at their daily tasks, as if they and their works were to endure for ever. Observe them building, planting, toiling, to make scratches on the surface, and proud of their achievements. Fatigued with their important labours, they seek repose in the full confidence of safety, and they dream of their own greatness and power. But the deluge comes! It pours down the furrowed sides of the mountains in a thousand cataracts, like the mighty host of God's destroying angels, each separate cohort commissioned for its own especial career of destruction! The numerous valleys are filled at once with the accumulated waters, and the riches of all are swept off to the ocean in different directions at the same moment. Throughout the whole windings of each respective strath all is sudden dismay, clamour, and dread. Some are struggling to escape with life from the devouring waves-some are pent up in their tottering dwellings with the shadow of death around them-others are hanging to their crazy and toppling roofs, suspended over the depths of eternity-whilst bold hearts are stirred up to do daring deeds, and all the finer feelings and magnanimous virtues of humanity are excited and

called into activity;—a few hours ago all was peaceful abundance, and smiling happiness, and proud exultation—now all is turmoil and terror, or daring determination;—anon the floods disappear, and gaunt Famine sits brooding over the new-born wastes, and, as in the overthrow of some huge ant-hill, the wild hurry of surprise, and consternation arises, without concert, and utterly without benefit, either to the general body, or to the individuals composing it.

We cannot doubt that so terrible a judgment was sent by the Almighty Governor of the Universe for some great and benefical purpose; and the mercy that has been mingled with the chastisement may well teach us the love of that Heavenly Father, from whose hand it comes. Amidst all the terrors and dangers of this unexampled calamity, where thousands of lives were placed in jeopardy, the instances of providential deliverance were so numerous, and so extraordinary, that, throughout so great an extent of flooded rivers, we have only the loss of eight human lives to deplore! Then, how delightfully has it served to develop those moral excellencies, which, though not altogether extinguished beneath the dross of human nature, do yet require some great stimulating cause to bring them into play. But, above all things, we ought not to neglect this awful admonition to a sinful land, nor refuse to lay it to our hearts. I know that many individuals of all ranks have deeply felt this warning; so that, if the temporal and physical effects of the flood have been severe, we may hope that the spiritual and moral fruits resulting from it will be but the more abundant.



No. I.

EXTRACT from Register kept at Inverness by MATHEW ADAM, A.M., Rector of the Inverness Academy.—Height about 30 feet, and Distance from the Sea about one mile. Observations made with a Patent Rain-gauge.

	The	rmom	eter	Baror	neter				
		r		<u> </u>					
1829.	3 h.	9 h.	8 h. 30 m.	9 h. 30 m.	8 h. 30 m.	OBSERVATIONS.			
	A.M.	A.M.		A.M.	P.M.				
August.									
Sun. 2.	48	δı	<u>5</u> 6	29.94	29.90	Obscure; showers; wind and clouds from W.; calm, with rain in the evening			
Mon. 3.	47%	51	52	29.68	29.62				
Tues. 4.	49	55		29.65	29.90	Obscure; strong wind and rain from N.; nearly calm in the evening Memorandum.—2½ inches of rain fell here since the evening of Sunday, the 2d inst.; observed by a patent rain-gauge, which pours out every half cubic-inch of rain, and registers the quantity fallen; the cubic-inch of rain thus discharged being 1-100th part of one inch deep of rain			
Wed. 26.	45	54	52¾	29.70	29.39	Nearly clear; light wind from N. by E.; 2 hours of rain after 2 h. P.M.; in the evening obscure, rain, with gentle wind E. by S.			
Thu. 27.	46	54	51 ¾	29.04	29.51	Very strong wind and rain from NE.;			
Frid. 28.	49	52	51 1/2	29,84	30.07	Strong wind; clouds and slight showers N.NE.; river Ness, and tributary burns, flooded; obscure. Memorandum.—7½ inches of rain have fallen already this month, of which, 2½ inches fell on Wednesday, Thursday, and Friday last Memorandum on Monday the 31st.—About 8½ inches of rain fell here during the month			

No. II.

JOURNAL, kept by the Rev. WILLIAM RANNIE, Manse of Fochabers, for August 1829.—Latitude 57.38. Above the Sea 80 feet. Obvervations made about 11 o'clock forenoon. Barometer marked in inches and tenths.

1829.	WEATHER.	Wind.	Barom.	Therm.
Aug. 3. , 4- , 5. , 6. , 7. , 8. , 9. , 10. , 11. , 12. , 13. , 14. , 15. , 17. , 18. , 19. , 20. , 21. , 22. , 23. , 24. , 25. , 26. , 27. , 28.	{ Heavy fall of rain throughout this day; } high wind { Heavy rain in morning; cleared up at } twelve Serene and pleasant Mild and fair Still mild and fair Fair in morning; heavy rain in afternoon Unsettled Rainy Flying showers Fair and Mild Clear; cloudy towards afternoon Cloudy Cloudy and unsettled Flying showers Occasional showers Changeable Very variable Changeable Alternate showers and sunshine Variable Fair, but threatening rain Heavy rain Boisterous and flying showers Very cloudy, but mild Stormy, and heavy rain Cloudy and unsettled Serene and settled Rainy Mild and settled	NW. NW. NW. SW. SW. W. NW. NW. NE. NE. NE. NW. NW. NW. NW. NW. NW. NW. NW. NW. NW	29. I 29. 5 29. 6 29. 8 29. 4 29. 8 29. 4 29. 8 29. 7 29. 6 29. 6 29. 6 29. 6 29. 6 29. 6 29. 6 29. 2 29. 2 29. 2 29. 2 29. 2 29. 2 29. 3 29. 3 29. 4 29. 8 29. 7 29. 8 29. 7 29. 8 29. 8 20. 8	53 50 2 33 2 59 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

No. III.

JOURNAL OF THE WEATHER, kept by Mr MENZIES, at Gordon Castle, for August 1829.—Barometer marked in inches and tenth parts.

1829.	Morn	ing at 8 o	'clock.	CENTRAL OPERRYLATIONS
August.	Therm.	Barom.	Wind.	GENERAL OBSERVATIONS.
Sat. r. Sun. 2.	60 61 52	29.7 29.6 29.3	NW. W. N.	Fair; wind moderate, with sunshine Do. do. warm all day Heavy rain through the night, and all the
4. 5. 6. 7.	51 57 60 60	29.2 29.6 29.7 29.7	NE. N. N. NW.	morning Do. still continues Fair; moderate breeze and sun Do. do. do. Rain through the night; fair through the
8. Sun. 9. 10. 11. 12. 13.	60 60 62 52 50 48 52	29.5 29.3 29.2 29.6 29.7 29.7	W. S. NW. NW. W. N.	day Fair; moderate breeze with sun Changeable Fair; calm, and gloomy Do. good breeze, no sun Do. calm, and sun Do. moderate breeze, little sun Do. good breeze, no sun
15. Sun. 16. 17. 18. 19. 20. 21. 22. Sun. 23. 24.	5° 50 55 55 55 55 55 55 55 55 55 55 55 55	29.6 29.5 29.5 29.4 29.2 29.4 29.3 28.8 28.9	N. W. N. N. NW. S. W. & E. W.	Changeable Showery through the day
26. 27. 28. 29. Sun. 30. 31.	52 50 52 53 62 60	29.5 28.6 29.2 29.7 29.7	W. N. N. NW. NW.	Fair, calm, and sun; rain all the after- noon Rain all night, and through the day Do. continued till noon Fair Do, thick drizzling rain, rain through the day Do. all night, now changed to rain

No. IV.

WEATHER TABLES, kept by Mr MURDOCH, Gardener to His Grace the DUKE of GORDON, at Huntly Lodge; with his Remarks appended thereto.

1829.	Thermo- meter.		Baro- meter.	Wind.	GENERAL OPERNUATIONS
July.	IO A.M.	IO P.M.	IO A.M.	Willia.	GENERAL OBSERVATIONS.
Wed, 1.	55	53	29.04	SE.	Cloudy morning; heavy rain after- noon; windy
2. 3. 4. 5. 6. 7. 8. 9. 10. 11.	64 61 53 56 56 50 53 57 66	53 53 53 51 52 54 54 54 58	28.925 29.015 .225 .045 .03 .04 .475 .425 .2		Brisk wind; fair Heavy hail-shower afternoon Rain all day—r inch Misty, showers; brisk wind Brisk wind; fair; cool Slight showers; cold wind Flying showers; cold; cloudy Brisk wind; fair Shower forenoon; cloudy; fine Cloudy; heavy showers; with thunder, afternoon Misty, drizzling showers
13. 14.	59 62 69	56 57	·3 ·375	sw.	Fair; fine Heavy rain, with loud thunder 5 P.M.
15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30.	62 59 59 59 59 59 66 63 55 65 65 65 65 65 65 65 65 65 65 65 65	546 54 2 1 1 8 6 3 9 9 2 4 4 5 5 2 2 5 5 5 5 5 5 5 5 5 5 5 5 5	.375 .45 .45 .3 .525 .75 .555 .75 .85 .925 .85 .725 .925	SW. SW. SW. NW. NW. SW. N. N. Chang S. SE. Chang NW.	Heavy rain morning; showery Brisk wind, with showers Heavy rain; afternoon warm Brisk wind, slight showers; fine Brisk wind, sunny; fine Calm; cloudy; slight showers Much the same Calm; sunny; fair Cloudy; showery morning Gentle wind; cloudy; showery Some drops; sunny; fine
Average General Average	59.23 } 56	53·25 5.24	29.5 29.5		Rain, from July 1st to August 1st, 2.21 inches

Temperature in Deep Well, - 46° in Spring - - 52 in river Bogie - 61 A good growing month; oats in ear about the middle; hay well saved. 21 days on which rain fell

WEATHER TABLES—continued.

1829.	Thermo- meter.		Baron	neter.		·	
August.	IO A.M.	IO P.M.	A.M.	IO P.M.	Wind.	GENERAL OBSERVATIONS.	
Sat. 1. Sun. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23.	62 516 55 53 8 64 65 1 1 5 5 4 5 7 8 5 5 2 4 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	57 54 52 53 55 56 55 47 47 49 6 49 9 49 52 49 7 52 18 44	29.9 29.825 29.45 29.75 29.75 29.75 29.875 29.875 29.875 29.875 29.875 29.875 29.875 29.875 29.875 29.875 29.55 29.55 29.55 29.55 29.32 29.45 29.35	29.9 29.75 29.8 29.875 29.8 29.875 29.65 29.355 29.875 29.75 29.75 29.75 29.75 29.425 29.425 29.425 29.425 29.575	W. NW. Chang N. NE. NE. Chang NW. NE. NE. NE. NE. NE. NE. NE. NE. NW. SE. W. NW. NW.	Slight showers; fine Windy; frequent rapid showers Windy; showery evening Heavy clouds; rainy evening Heavy continued rain after 3 P.M. Heavy clouds; slight showers Heavy clouds; slight showers Windy, with heavy showers Frequent heavy showers Windy; continued rain afternoon Calm; mild; showery evening Severe storm of wind and rain ev'ng. High wind, with slight showers, morn.	
26. 27.	55 54	49 52	29.6 28.85	29.325 28.35	SE. NE.	Wind and heavy rain afternoon; rain 6.5r inches Wind, with heavy driving rain till 3 P.M.	
28. 29. 30. 31.	51 59 60	50 50 57 57	20.675 30.05 29.95 29.95	29.95 30.05 30.0 29.9	N. NW. NW. NW.	Do. do. till 4 P.M. Clear; fair; rather settled Thick misty rain all afternoon Fair; rather clear	
Average General Average	56 } 5	51 3·5	29.6 29	29.6 .6	28 days on which rain fell; rain for t month 7.36 inches!!! The wettest mon for 9 years. On the 3d and 4th the ra and flood tremendous		

Mean Temperature and Rain for August, September, and October, from 1821 to 1829, both years inclusive.

YEARS.	MEAN HEAT.	RAIN.
		Inches.
1821	53.65	5.93
1822	51.14	7.23
1823	50.77	10.0
1824	51·35	9.8
1825		8.19
1826	54.13 53.46	3.64
1827	52.82	9.9 6.82
1828	50.87	6.82
1829	49.37	14.30

It appears, from the above, that these three months in 1829 have been the coldest, as well as the wettest, for nine years.

The Month in which most Rain fell in each Year, and the Quantity for that Month from 1821 to 1829, both years inclusive.

YEARS.	MONTHS.	RAIN.	REMARKS.
1821 1822 1823 1824 1825 1826 1827 1828 1829	November July October October August November October August August August	Inches. 3-5 5-35 4-7 4-9 3-85 5-15 7-13 3-97 7-36	July once the wettest August thrice do. October thrice do. November twice do.

Extraordinary as the fall of rain in August 1829 has been, nearly as much fell in October 1827, and that from the 9th of the month to the end of it. Yet we had no remarkable flood in that month. But then we never had more than 1½ inches in any given 24 hours. Besides, in the month of October, rain in the lowlands is generally snow on the mountains, which, melting gradually, no overwhelming flood occurs at one time. Whereas, in August 1829, 3¾ inches of rain fell between five o'clock of the morning of the 3d, and five o'clock of the morning of the 4th, and on the hills, as well as in the valleys, all in rain, which seems to account clearly enough for the immense floods of the 3d and 4th of August, and especially if we take into account the probability that, enormous as the fall was here, it must have been infinitely greater on the hills.

Mean Temperature for the Year, and for the Seven Growing Months (from March 20 to October 20), from the Year 1821 to 1829, both inclusive; the Thermometer observed at Morning and Evening.

YEARS.	Temperature for the Year.	Rain for the Year.	Temperature Growing Months.	Rain Growing Months.
-0	6	Inches.		Inches.
1821	45.625	25.0	50.9	14.7
1822	46.963	24.03	51.99	17.0
1823	44·57 5	27.8	50.475	18.7
1824	45.69	28.31	50.85	15.84
1825	46.91	24.01	52.21	12.32
182Ğ	47.62	20.32	53.6 1	9-33
1827	45.9I	30.24	52.4	15.48
1828	47.35	23.94	52.5	15.43
1829	44.25	30.96	50.105	20.96
Averages	46.99	26.06	51.671	15.52

Remarks on the Years 1828 and 1829 relative to the Production of Corn and Green Crop.

1828.—The seed-time was wet and unpromising, and the farmers predicted a bad crop. May, June, and the first three weeks of July, were favourable, averaging 55° 75 of heat per diem, with 5.85 inches of rain for the same time, which fell so regularly as to promote the growth of grass and corn in the highest degree; and at the same time the weather was sufficiently sunny and dry to save the hay crop. About the 22d of July, cold and wet weather commenced, and lasted five weeks, that is till the 25th of August. During this stormy period, the cry was general that the crop was lost; and probably, had the bad weather begun three weeks later, the effects of it might have been disastrous. It so fell out, however, that very little corn was cut, and when fine weather commenced on the 25th of August, the corn which had ripened during the cold and wet was ready for the sickle, and the harvest was completed in the month of September in the best manner; the coldness of our Scottish climate for once giving us a decided advantage over warmer countries, where most of the corn was cut, but not stacked, and thus exposed to five weeks of wet weather, so that much of it rotted and sprang, and the quality of the grain was greatly deteriorated. Potato and turnip crops were abundant and good this year.

1829.—The leading features of this year were similar to those of the last, but all worse of their kinds. The seed-time (April) was still worse than last year. May, June, and July, averaged 54° 65' of heat per diem, with 4.42 inches of rain. Then came the unprecedented wet August, a wet September, excepting ten fine days after the 12th, and a wet October, up to the 20th; and with all these, wonderful to say! there is hardly a shock to be seen out in sight of Huntly, and farmers say they have not had a sprung sheaf, or a hot stack, this season. The hay crop was abundant, and well got in; but turnips and potatoes are greatly inferior to last year's crops, particularly in flat-lands and hollows, where the dreadful pour of rain being retained, and standing in pools, completely drowned them.

From the results of these two years, it would appear that, let the seed-time be as wet and unfavourable as possible, and let August, September, and October average an inch of rain per week, yet, if May, June, and July, do not average less than 54° of temperature per day, and not more rain than 2 inches per month, the corn crops in general may be got in well ripened, and in good condition, about the middle of October. Every degree of heat under 54° for the above three months will render the crop about a week later.



No. V.

METEOROLOGICAL TABLE for August 1829; by Mr George Innes, Astronomical Calculator, Aberdeen.—The Instruments made by RAMSDEN.

1829.	The	ermome	eter.	В	aromet	er.	Wind.	REMARKS.
Aug.	8а.м.	9 P.M.	Mean.	8а.м.	9 P.M.	Mean.	Wind.	ABM/IAIO.
Sat. 1.	64.2	59.8	62.0	30.34	30.21	30.275	E.	Clear till P.M.
2,	66.0	59.7	62.85	30.16	30.20	30.18	W. to N.	Cloudy, with showers
3.	59.5	57.0	58.25	29.28	29.30	29.335	N. to N.NE.	Stormy; much rain; dis-
"		"		1	į	1		tant thunder
4.	57.8	57.5	57.65	29.74		29.935	N.	Cloudy, with rain
5.	56.5	57.5	57.0	30.12	30.14	30.13	E.NE.	Do. do.
5. 6.	59.5	59.5	59.5	30.12	30.12	30.12	_S	Partly clear
7.	60.0	59.5	59.75	30.23		30.24	S.SE.	Light clouds
8,	63.8	64.0	63.9	30.18	30.00	30.09	s.sw.	Light clouds; rain 11 P.M.
9.	72.0	59.0	65.5	29.82	29.69	29.755	S.SW. to W.	Light clouds; clear 9 P.M.
10.	64.5	52.3	58.4	29.64	29.85	29.745	S.byW.toN.	Thunder, with very heavy
1	1				١ .	1 1		showers
.11.	55.0	49.5	52.25	30.06	30.18	30.12	N.	Flying clouds
12.	54.5	53.5	54.0	30.30	30.26	30.28	Variable.	Do.
13.	55.2	49.6	52.4	30.16		30.105		Do.
14.	56.5	52.7	54.6	30.01	30.00	30.005	NE.	Do.
15.	56.5	50.5	53.5	29.99	30.03	30.01	N.NE.	Do. Do.
16.	53.2	54.4	53.8	30.06		30.055	Variable. SW, to W.	Dense clouds, with showers
17.	59.5	56.8	58.15	30.01		29.955		Light flying clouds
18.	56.7	54-5	55.6	29.86		29.81	Variable. E.	
19.	57.5	53.5	55.5	29.50		29.48		Mostly clear Keen breeze, with heavy
20.	54.2	52.5	53-35	29.51	29.00	29.535	N.NE.	clouds
i i				0-	00	29.85	N.NW.	Flying clouds
21.	52.2	52.0	52.I	29.82			SE.	Cloudy; much rain P.M.
22.	55.5	54-3	54.9	29.79		29.54 29.22	s.sw.	Flying clouds
23.	60.5	55.3	57.9	29.22		29.22		Do, with rain; keen breeze
24.	54.2	52.2	53.2	29.27				Strong breeze; flying
25.	51.5	48.0	49.75	29.59	29.92	29.755	14.14 44.	clouds
26.	54.0	52.5	53.25	29.95	29.68	29.815	SW. to SE.	Cloudy, with rain P.M.
27.	55.5	54.7	55.1	29.10		29.385	E.	Cloudy, with much rain
28.	55.7	54.0	54.85	29.87		30.02	NE.	Cloudy, with showers
29.	53.7	51.7	52.7	30.34		30.34	N.	Fine
30.	57.4	60.0	58.7	30.30		30.305	N.	Cloudy, with showers
31.	61.0	60.5	60.75	30.30	30.25			Flying clouds
Mean.	57.87	55.11	56.49	29.89	29.92	29.905		
	<u> </u>	l	[1	J	1	li 1	1

No. VI.

STATE of the WINDS at FINDHORN, on the 2d, 3d, and 4th of August.—Communicated by Mr THOMAS DAVIDSON.

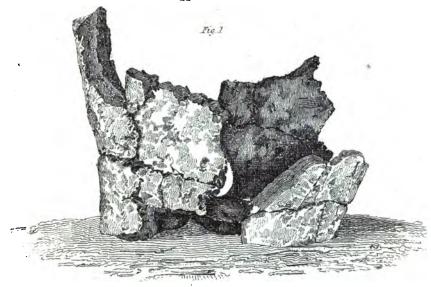
DATE.	Hours.	WIND.	REMARKS.			
1829. August 2.	9 A.M. 1 P.M. 3 P.M. 9 P.M.	E.NE. NE. N. N. to NE.	Blowing fresh Blowing hard Blowing a gale A little more moderate, occasionally blowing hard, with showers.			
,, 3.	6 A.M. 1 P.M. 6 P.M.	NE. NN. NE.	Blowing hard Still blowing hard Moderate breezes			
,, 4.		NE. to E. NE.	All this day fine wea- ther.			

No. VII.

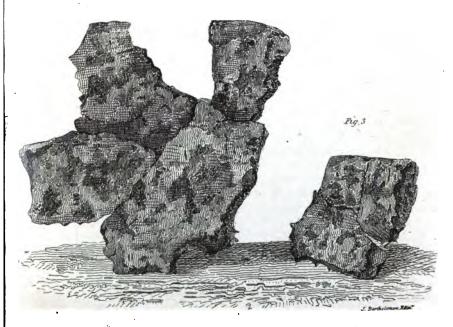
VASES found in the Druidical Cairn recently opened at Clava, by Mrs CAMPBELL.

The text of page 12 had been printed off for a considerable time when I received a most interesting communication from Miss Campbell, informing me, that the fragments of two earthen vases were found in the chamber in the interior of the Druidical circle opened at Clava, by Mrs Campbell's orders. (See Plate I.) "It was about 18 inches below the earth," says Miss Campbell, speaking of the more perfect of the two, "exactly in the centre of the Circle. It was found in a broken and very mutilated state, the whole body of the stones having lain upon it. A quantity of calcined bones were in it and about it, all of which we have. The clay is of the coarsest kind, and the vase is of the rudest make. It has, apparently, had no cover, but is rounded at





Tig. 2



the top like a garden-pot, which it resembles more than any thing else. The bottom is flat, the inside very black, from having been burned, the outside red; across the exterior of the bottom it measures 6½ inches, and across the interior exactly 5 inches, and the height, in its fractured state, is 4½ inches. After clearing away the stones, the interior of the cairn was found to be composed of gravel, but the vase and bones were enclosed in a portion of clay quite distinct from the natural soil."

At first sight this might seem to be at variance with the opinion hazarded in the text of page 13, that "the cell distinguishes the cairn dedicated to religious purposes from that which is monumental or sepulchral." But we know that the Britons of the north usually buried their dead, whilst the Druids seem to have followed the practice of cremation chiefly used by the Britons of the south. These vases, therefore, probably contained the ashes of Arch Druidical Priests, thus interred within the sanctum sanctorum of their mysterious worship, as a bishop might be interred under the high altar of his cathedral. When joined together, the pieces do not entirely complete one vase (see Plate, Fig. 1, from a drawing kindly executed for me by Mrs Campbell), and the two other broken fragments found (see Figs. 2 and 3), must have belonged to a second vase, for they do not in any way apply to the first. I have great reason to hope that more light will speedily be thrown on this interesting subject by Mrs Campbell's highly laudable antiquarian investigations.

No. VIII.

Sir Andrew Murray of Bothwell's Retreat before Edward III.

SINCE page 48 was printed off, I have accidentally discovered that Sir Walter Scott, in his Tales of a Grandfather (1st Series, vol. ii., p. 30), and, more recently, in his History of Scotland, forming a part of Dr Lardner's Cyclopædia (vol. i., p. 187), in giving the story of the Regent Sir Andrew Murray's retreat before Edward III., conjectures that the scene where it took place "was probably a portion of the famous wood of Birnam." This

supposition is most natural; indeed, Sir Walter could scarcely have arrived at any other conclusion; for Wyntown, to whose authority he refers, after bringing Edward to Perth, quite overleaps the remainder of his march to Morayland; so that any one unacquainted with the topography of Moray must necessarily believe that the "Blare" that follows towards the end of the passage, must have been Blair-in-Athole, whereas it is, in reality, a place called Blare, about three miles above Forres, forming part of Sir William Gordon Cumming's estate of Altyre ;-the "Stronkaltere" of the poetical historian having also allusion to a portion of the extensive forest, sometimes called of Drummine, which then covered the whole district of Brae-Moray, where lie the lake and Castle of Lochindorb. All the Scottish historians agree that Sir Andrew Murray blockaded the Countess of Athol in this castle, and that King Edward marched to her relief.* It therefore follows, that the scene of Sir Andrew Murray's surprise and retreat must have been at no great distance from Lochindorb; and this, I think, is proved by a careful examination of the evidence given by Andrew of Wyntown himself, who does not disagree with Fordun, Boethius, Buchanan, or any other Scottish historian in any of the important circumstances.

From the 30th chapter of the VIIIth Book of "Wyntown's Cronykil," we learn, that, in the year 1335, Sir Andrew Murray, the Regent, hurried northwards from Lothian, with the Earl of March and the Douglas, to relieve his wife, the brave "Crystyane the Brwys," then besieged in the strong fortress of Kildrummie by David Cumin, Earl of Athol. In the 31st chapter we have a spirited and picturesque account of the battle of Culblane, where "Earl Dawy" was routed and slain, the scene of which event. lying on the banks of the Dee, I have particularly noticed in the body of this work. (See page 308.) Immediately after this victory, Sir Andrew Murray proceeded to besiege the Castle of "Dwndarge," in Buchan, held out by Henry Beaumont for that interest espoused by the King of England. Sir Andrew compelled its governor to yield, on condition of being allowed to pass into England with his people, and this brings us to the 32d chapter. which I shall now beg to quote, adding such notes at the bottom of the page as may render the whole intelligible.

^{*} Vide Fordun, lib. xiii., cap. 37.—Boethius, book xv., cap. 9., &c.

"CHAP. XXXII.

"Beyhonde the Mownth 1, quhen menil lande Was drawin in Scottis mewnis hande.

۳ A. D. A thowsand and thre hundyr yhere And sex and thretty to tha clere, **z** 336. Thus wes the Bewmownd put away, Than at there Pes haly had thai, On north half the Mownth halyly. Thai war than in gud juperdy To fare welle, gwhen sa mekil land Wes al-to-gyddyr into thare hande. "That time the Erlis wyfe Dawy 3, With other ladyis that ware luvely, War in-to Lowchindorb lyand. And qwhen the King of Ingland Herd, that swa thai ladyis Ware enwyrownd wyth thare innymyis 3, He buskyd4 to reskwe thame then With twenty thowsand chosyn menyhe, And swne he passyd the Scottis se; And syne to Perth has tane his way 5. "Schyre Andrew of Murrawe than lay With the menyhe that wyth hym were, In the Wode of Stronkaltere⁶. That to the King Edward wes tald: Tharefor, wyn til hym he wald, And come so nere intyl a thrawe, That thaire Dyscoverowris athir sawe, And sum of thaim justyd of were "Schyr Andrewe in Stronkaltere Herand his mes wes standard then. Bot thare wes nane of all his men, That ever wes in his rowt that day, That ony word durst till him say,

¹ That is, the Grampians.

² Erle Dawy's wife.

³ That is, besieged by Sir Andrew Murray, who had already reduced every strength that held out for the English interest to the north of the Grampians, except this almost impregnable Castle of Lochindorb, in Moray.

⁴ Prepared.

⁵ Observe, the historian distinctly makes the relief of Lochindorb the great object of Edward's expedition.

⁶ Besieging Lochindorb, or rather blocksding it,

Qwhil he wes herand mes, for he Thereat suld noucht anovit be. Tharefore thai made thaim bowne, and bade, Owhil that he herd his mes all had, Than have that tald till flym, how nere That the King and his gret ost were, He said, 'Na hast?,'-qwhethyr perfay Hys folk wald fayne have bene away; For the gret ost was then so nere That sum bot schort space fra thame were, Hys hors til hym thai browcht in hy: Thai wald he had been on blythly8. He hym dressyt his sted to ta; Hys cusche laynere brak in twa?, Than wald he nowcht stere off that place. Bot for all hast that evyr there was, He gert bryng hym a lytil cofyne 10; A rone skyne¹¹ tuk he thare-of syne And schayre a thwayng all at laysere, And wyth that festnyd up his gere. I herd sere knychtis syndry say 12. That thame thowcht nevyre in thare day So rycht anoyws a bydyng, As thai had at that thwayng scheryng. He lape on syne, and in aray Held welle his folk, and held his way. And owhen the Inglis saw thame then Hald sa togyddyr all thare men. Thai followyd, noucht owt of aray, Bot in hale batale followyd av Sa fast, that thai had bene ourtane, Na war18, that thai had wyth thaim ane, That kennyd hame 14 a by way 15,

- 8 They were still so dreadfully alarmed they wished him to mount with all haste.
- 9 His Cuisse Lanier, the thong that braced his thigh armour, gave way, and he immediately availed himself of the circumstance farther to display his coolness and confidence.
 - 10 He made them bring him a little coffer.
 - 11 Took from it "a rone skyne," a roe's skin.
- 12 Here it is evident that Wyntowne gives the anecdote on the authority of several knights who were present.
 - 13 An it had not been.
 - 14 Home; that is, to Tarnawa Castle, on the left bank of the Findhorn.
 - 15 That is, by Randolph's Bridge.

⁷ Seeing his people in a panic at the advance of an army of 20,000 men against them, he wished to allay their apprehensions by shewing them an example of perfect coolness.

That ewyn down betwix craggys lay Throw that strayte Rode¹⁶, that I dewys, Thai gat well frae thare innymys, And left nother man na lad.

"And qwhen the Kyng sawe that he hade Tynt them of swilk wys he wes wa, And northwartis ¹⁷ on his gate can ga, He come to Blare, and thare thai lay. Eftyr to Lowchindorbe come thay, And the ladyis wyth thame hes tane."

16 Strait Road, the literal translation of the Rait Cuack, the ancient Gaelic name of the place.

17 This accurately marks the route through the forest from Lochindorb to Blare, where his army rested for the night, previous to his return to the Castle of Lochindorb.

Edward being entangled in the intricacies of the forest, lost sight of Sir Andrew Murray, but, believing that he was still before him, he pushed forward to overtake him, till the forest grew thinner, and he saw that he had been deceived. On this he halted at Blare, returned next day to Lochindorb, relieved the Countess of Athol and her ladies, and carried them away with him; and, being enraged at his disappointment, in having been baffled by Sir Andrew Murray, the Scottish historians tell us that he ravaged and burned Morayland, and then marched southwards.*

• Having sent this Appendix to Sir Walter Scott, I have received from him a letter containing the following candid and courteous admission of his mistake:—"My Dear Sir Thomas,—I am very much obliged to you for the correction of my error as to Sir Andrew Murray's retreat, which is one of the finest actions of the period, and most characteristic of Scottiah generalship. My blunder was probably owing, as you suggest, to the mention of Perth and Athole in the text, about the same."



No. IX.

Dr FLEMING on the SHELLS found at Inchrory.

REFERRING to my notice of the Marl Insects, in pages 185 and 186, I have now to state, that I have been favoured with the following from Dr Fleming:—

"The shells referred to by Sir Thomas Dick Lauder, as occurring in a sedimentary deposit on the farm of Inchrory (page 185), belong to the HELIX hortenis of Müller, a species considered by many as identical with the Helix nemoralis. In their bleached state, the cuticle does not exhibit its ordinary yellow tinge, though the brown bands in one specimen may be distinctly recognized. In all the specimens, the peristome was white. In sedimentary deposits one would naturally expect to find the remains of aquatic molluscous animals, and such are known to abound in the common kinds of marl. But in the present instance, the remains of a terrestrial snail occupy the place of the aquatic kinds, and intimate, that, during the extraordinary inundation of the rivulet the grassy banks, on which this snail naturally resides, had been covered with water, and the molluscous tenants transported with the stream, in consequence of the destruction of the adhesive power of their sucker. While the snails were thus floating with the current, the aquatic species may have retained their hold of the stones or reeds, and outlived the flood, as their suckers can act independent of maceration in water."

Dr Fleming's authority is quite unquestionable. My specimens are therefore indisputably settled to be the *Helix hortensis* of Continental authors. But we must not be led astray by the extraordinary and accidental circumstance, that these few specimens have been found among the powdered marl, to believe that it owed its origin to the *Helix hortensis*. There cannot be a doubt that it is composed of the exuviæ of aquatic Helices, though the excessively levigated state of their exuviæ has as yet left us without the means of detecting to what particular species they belong. With my present limited information, I am led to believe that none of these aquatic insects now exist alive anywhere in the vicinity of the marl deposit. But I conceive the question to be

so highly interesting in many points of view, that I shall certainly take an early opportunity of visiting Inchrory, for the purpose of making farther investigations.

In transmitting Dr Fleming's obliging communication to me, that able and experienced naturalist, Mr Neill of Canonmills, says: "I know the shell mentioned. It is rare near Edinburgh; smaller than Arbustorum, and like Nemoralis, but smaller. Although it seems to be the Garden Snail (hortensis) of Germany, it is very different from the common garden snail of Scotland, or the Helix hortensis of Pennant, which is the Helix aspersa of the Continental naturalists. I had the Helix pomatia for a number of years naturalized in my little garden, but a Skua Gull and two Herons, constantly prowling about tame, seem to have extirpated the breed."

Subsequently to the publication of the account of the Floods, a series of these shells (*Helix nemoralis*) was sent to Sir Thomas Dick Lauder. Most of them were alive, and thus satisfied him that there was no indication of a deterioration of climate.

G. G.





No. X.

ABSTRACT STATE of the FLOOD FUND, and its Application.

I AM indebted to Mr ISAAC FORSYTH, of Elgin, for the following Abstract of the Subscription Flood Fund, which, being particularly appropriated to the destitute sufferers in the county of Elgin, was very much increased by his charitable zeal as Secretary to the Elgin Central Committee of Management. His labours have been unremitting and unwearied, and cannot fail to secure to him a yet more honourable, though perhaps less extended fame than rewarded his deceased brother JOSEPH, as Author of the admirable and scholarlike Tour in Italy. Small as has been the relief afforded, yet the liberality of those who contributed, and especially of the London Morayshire Club, who so promptly set the example, will be long warmly remembered by those who participated in it.

SUBSCRIBED, between 20th August 1829, and 20t			•	1470	10	I	
Distributed in all, from the 10th October 1829, and 27th February 1830,							
Allotted to be bestowed in honorary rewards to the boatmen on the Findhorn and Spey, who risked their lives to save others, on							
the 4th August,	20	0	0				
Expenses incurred in the management,	19	12	6				
			_	1469	2	•	
Balance on hand 3d March 1830,				£1	8	I	

APPLICATION of the FUND.

Total amount distributed as above,£1429	9	6
To Speymouth, 18 Cases,		
" St Andrew's, 7 " 16 o o		
,, Spynie, 19 ,, 42 5 0		
,, Forres, 140 ,, 100 4 o		
,, Dyke, 95 ,, 142 14 0		
,, Edinkillie, 33 ,, 65 5 o		
"Rothes,148 " 352 12 6		
,, Knockando, 28 ,, 87 5 o		
,, Abernethy, 33 ,, 106 5 o		
,, Duthil, 25 ,, 82 o o		
,, Dallas, 41 ,, 70 r4 o		
,, Elgin, 21 ,, 44 5 o		
,, Drainie, 2 ,, 10 0 0		
,, Alves, 1 ,, 2 0 0		
", Boharm, 3 ", 7 o o		
,, Urquhart, 8 ,, 21 5 o		
,, Cromdale, 11 ,, 45 0 0		
"Kirkmichael, 1 " 10 o o		
· ,, Inveravon, 12 ,, 75 0 0		
,, Aberlour, 8 ,, 41 10 0		
,, Bellie, 16 ,, 29 15 o		
,, Birnie, r ,, 6 o o		
	9	6
671 Cases.		

Suppose 41/2 to each family, 41/2

3019 1 Individuals.

N.B.—No cases returned from the Parishes of Duffus, Kinloss, and Rafford.

(Signed) ISAAC FORSYTH,

Secretary.

No. XI.

COPY of CIRCULAR by the CENTRAL COMMITTEE.

ELGIN, 20th April, 1830.

SIR,

The Central Committee for managing "THE FLOOD FUND," so freely and generously supplied by Morayshire men, and their friends, to an extent hitherto unparalleled in the north of Scotland, and which has averted the misery of absolute want from upwards of 3000 individuals—having often, during their investigations of the numerous cases of distress laid before them, had their attention drawn to the important services of the boatmen on the rivers Findhorn and Spey, think it is a duty (before closing their labours), which they owe these brave men, to place their conduct and merits fairly before the public.

On the awful morning of the 4th of August last, these two rivers had swollen so much beyond all former precedent, as to assume the appearance of inland seas, the houses in their neighbourhood were surrounded and invaded by the inundation to such a height that all were endangered, some severely injured, and many were wholly swept away; the lives and safety of the inhabitants, and their cattle, thus placed in the most imminent peril, and a degree of alarm and excitation, which became almost agonizing, created in the minds of all. At this painfully interesting and critical moment, at the very dawn of the day, animated by one common but generous feeling for the deliverance of their fellow creatures, at whatever personal hazard, five boats' crews started from the town of Findhorn, and several cobles from the west side of that river, proceeding in all directions, over hedges and embankments, and through every obstacle, to the objects in view. Their laborious and dangerous exertions were crowned with the most gratifying success; not one life was lost; though, without this noble, disinterested, and unsolicited assistance, many must have perished. On the Spey, at Rothes, and at Garmouth, the same generous, prompt, and effective spirit was shewn, with the same gratifying results. Several lives were saved, though at the most fearful risk to their brave deliverers. From the accounts

already received by the Committee, forty of these warm-hearted brave fellows were engaged in that perilous work of mercy. Considering the Fund confided to their direction as a sacred trust for a specific object, the Committee, although deeply impressed with the merits of these brave men, and the propriety of some reward, could not venture to deviate from the principle they laid down for their own government in this matter, farther than by appropriating £20 as the foundation of a small fund for the purpose, which they now beg to recommend to your patronage.

Instead of a present in money, which would be soon dissipated and forgotten, the Committee have thought that a preferable mode of remunerating such services would be by an *Honorary Reward;* and that a Silver Medal to each man, with his name and services engraven on it, which, with an honest pride, on festive or solemn occasions, could be displayed by himself and his descendants as a proof of his merit, and of the public approbation; and hence become a stimulus, in the little circle of his connexions and acquaintance, to emulate his good conduct, and thus, in a certain degree, to elevate the character of this class of the people, would best accomplish their idea.

Having consulted artists in London, they find that something between £50 and £60 in all will be necessary to produce the requisite number of medals in a style worthy of the occasion, and as an object of pride and care to the receivers. Of course £40 must be raised by the kindness and subscriptions of those who approve of this mode of rewarding these deserving men; in whose praise it can be truly stated, that not one of them has ever made the most distant application to the Committee for reward. or allowance of any kind; and all of them are at this moment completely ignorant of such an application in their favour.

The Committee have adopted, as an appropriate design for this medal, a view of the Bridge of Spey, after the destruction of the two northern arches, by which the ruins of this noble structure are seen standing amidst the raging flood, emblematical of the devastation it occasioned, and of the important services intended to be commemorated by the medal. On the obverse side will be an inscription of these services, and the name and residence of each individual separately engraven. They hope that, although their countrymen have come forward in so unprecedented a manner to the relief of the sufferers by this awful

calamity, that yet, this humble appeal to their feelings in favour of those bold and fearless men who periled their lives in the cause of humanity, will also meet their approbation and support. Any small contribution towards this object, from a crown to a guinea, will be thankfully received, and faithfully applied, if paid in to the persons mentioned below. I have the honour to remain, Sir, your obedient humble Servant,

I. FORSYTH,

Convener of the Central Committee.

Subscriptions received, in London, by Messrs SMITH, ELDER, & COMPANY, booksellers, 65, Cornhill; in Edinburgh, by Dr WILLIAM RHIND, Broughton Place, and by Mr A. BLACK, bookseller, North Bridge; in Elgin, by the CONVENER of the CENTRAL COMMITTEE.

