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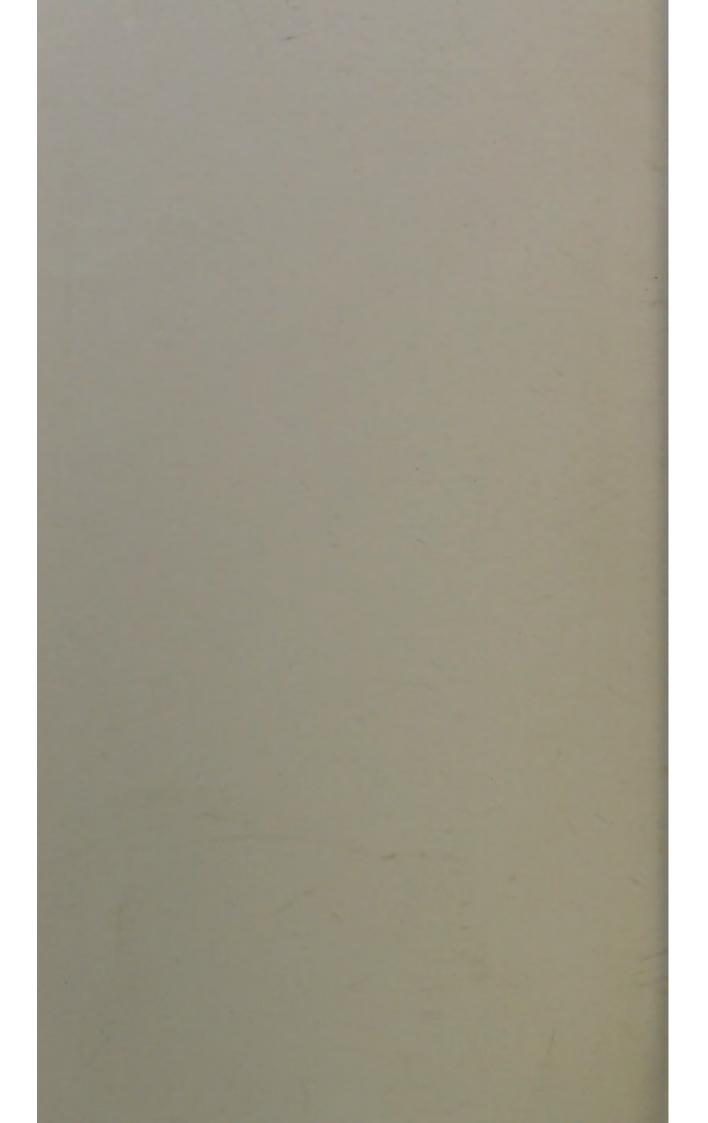
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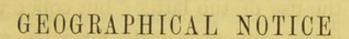
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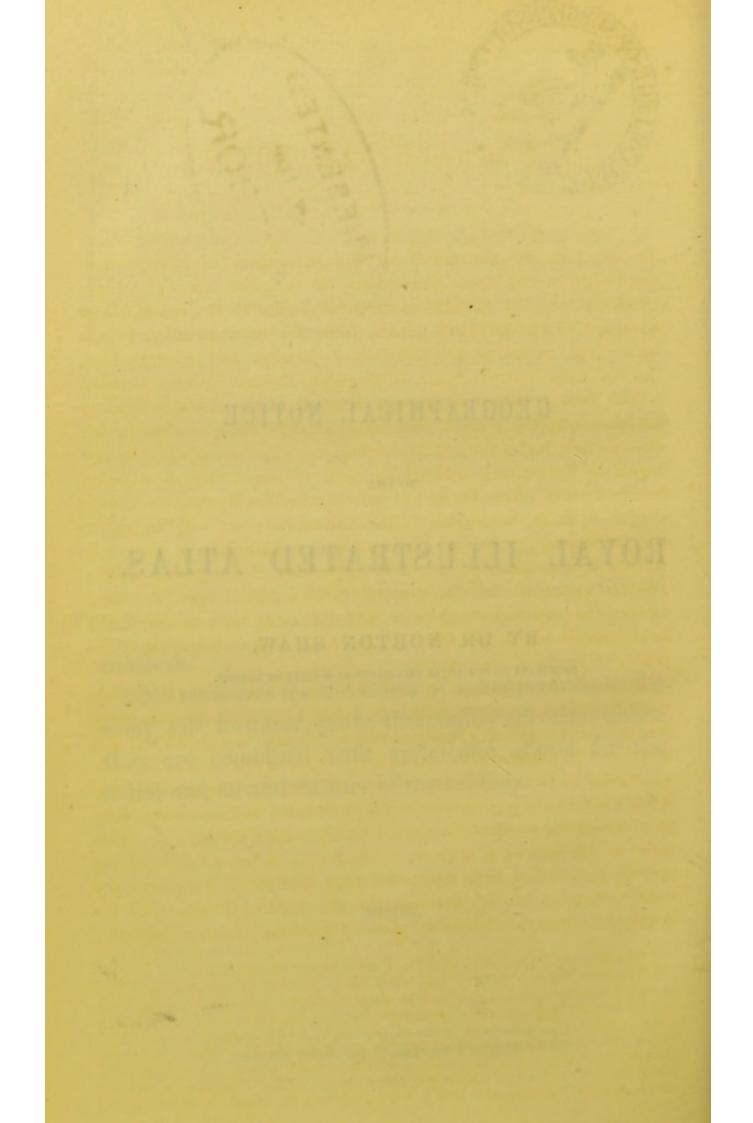


TO THE

ROYAL ILLUSTRATED ATLAS.

BY DR. NORTON SHAW,

SECRETARY TO THE ROYAL GEOGRAPHICAL SOCIETY OF LONDON.



GEOGRAPHICAL NOTICE.

To expatiate on the proofs of the importance of Geographical knowledge would seem unnecessary, if our own history did not furnish a long list of fatal occurrences, owing to the ignorance or disregard of Geographical details, from the earliest down to the latest date; including the disasters of Saratoga and New Orleans, the Walcheren and the Niger, Afghanistan, Bulgaria and the Crimea.

The gallant Nelson was nearly deprived of the glorious fruits of his labours by the want of knowledge of the shoals, near which the enemy's fleet had anchored at Abukir, and after the landing of our troops in Egypt, they suffered for want of water, though eighteen hundred years before, Cæsar had informed us that it might be had by digging at an inconsiderable depth all along the coast. When, at the commencement of the first Birman war, our ignorance of the whole frontier became manifest, the short-sightedness of not having made a previous examination of the mountain passes, flashed upon the mind of even the most careless observer, and every one may remember the fatal consequences to our brave troops, when obliged to penetrate the unknown jungle of the country.

Although the experience gained then has proved of use in the late contest in the same country, let it be remembered that our knowledge was gained through an exorbitant loss of life, and that gold itself may sometimes be purchased too expensively .-- Nor is the want of accurate knowledge of Geographical detail alone felt by our Commanders; but it has embarrassed our most expert diplomatists; and even threatened to interrupt the greatest commercial interests upon earth.* An ignorance of the course of a river, of the range of certain hills, of the specific name of a bay, mentioned in a diplomatic document, has nearly caused a conflict between the two kindred branches of the Anglo-American race,† between nations speaking the same language,

* The Boundary Questions with the United States of America.

* The Boundary Questions with the United States of America. † The term "Anglo-Saxon" has often led to a wrong interpretation. The so-called Saxons invaded England in great numbers, and must consequently have possessed large means of transport; but the Germans have never been a great maritime people,—and, even in our days, could scarcely muster ships enough to convey a few thousand men to any distant point. On the contrary, the Scandinavians and other people, bordering on the coasts of the Baltic and North Seas, were the real invaders of this country. The Norse, Danes, Swedes, Jutes, Angles, Frisians, and Dutch were doubtless the most numerous, whila

professing the same religion, and possessing in many respects the same form of government and laws.

Minor proofs of ignorance of Geographical Science are of everyday occurrence in our military, diplomatic, and commercial relations; and strange to say, the inhabitants of an Empire on which the sun never sets, and which encircles in its mighty grasp, portions of the whole earth, are at the same time, in general and systematic education, behind most other civilized nations.—To what then can so strange a circumstance be attributed? If in a country where everything is left to individual exertions, we escape the defects inherent with a system of Centralization, we are also deprived of the advantages which may, at the same time, be obtained from it. Jealous of our liberties, we hesitate placing unlimited power in the hands of our rulers, before having protected ourselves from danger, by previously taking security for the due fulfilment of their duties.*

Possessing no authorized central establishment for the diffusion of Geographical knowledge, the necessary materials must be sought in various quarters and with great loss of time.

A Map has been designated the perfection of short-hand, and true Map-making may be said to belong at the same time to the fine arts. and to the exact sciences. But with how great difficulties is not the process of Map-making encumbered? A large portion of the earth's surface has been laid down, and our Maps and Charts are continually receiving fresh additions from the discoveries of energetic and scientific explorers; nevertheless, what deficiencies have we not still to deplore,-and how long a period must not necessarily elapse, before even the three co-ordinates of latitude, longitude, and elevation above the level of the sea of all parts, can be ascertained with accuracy. Meanwhile the public is bewildered, not so much perhaps by the number and variety of existing Maps, as by our ignorance of the extent to which they can be trusted. A Map on a large scale, on fine paper, beautifully engraved, tastefully coloured, and audaciously advertised, + with a recent date attached to it, will be sure of tolerable success, although it may, upon examination, turn out to be nothing but a reprint of one of an ancient period, or a compilation of unauthenticated data. Some Maps are correct in certain parts and as incorrect in

the real Germanic invasion may be safely calculated to have commenced at a much later epoch in the history of our country.

* With a due extension of the suffrage the dangers of Centralization alone become harmless, and the exercise of power by the few can be only safely combined with the augmentation of rights to the many.

⁺ On the arrival of the news that a recent German traveller had successfully penetrated to Timbuctu, it was boldly asserted by his friends, that this town had never before been reached by any European; ignoring thus totally the rights of our own Laing, of the French Caillié, and those of Adams and of Riley. The ever-to-be-lamented Mungo Park had also passed by the town on his way down the Niger. others. 'Thus in some, the coast-line is tolerably well laid down, while the inland parts are the contrary; in others the case is reversed. The mountain ranges and river courses may be well traced, while the positions of the towns are inaccurate. In some, the hilly parts, in order to cause greater effect, are shaded in a manner to produce the most erroneous notions of the relative heights and character; while in others, elevations are assumed to exist between all water courses,* and are accordingly laid down as such. Some Chorographical Maps insert the forests of the country with great exactness, not only as regards extent, but also the nature of the trees themselves, as deciduous or evergreen; while in others, swamps and marshy grounds are carefully indicated; in others again no attention is paid to these features.

To aid in the improvement of the quality of Maps and Charts is an essential duty to all Geographers. Without a knowledge of Geography no education can be solid, and the neglect of it is pregnant with loss to the community at large .--- Whether we turn to the statesman or the soldier, to the merchant, the navigator, the historian, or scholar, the want is everywhere felt. In a country where popular education has been so greatly neglected, that one half of the people may be said to be totally uneducated, while the studies of a large portion of the other half scarcely includes Geography, comparatively little support may be expected by the scientific Map-maker from the masses of the people.

In some foreign countries government steps in, and with a discriminating eye assists in the task; but in England little has been done. and that little not always with due discrimination. Expensive expeditions, it is true, have left our shores, which, from neglect of the simplest precautions, have turned out at once to the discredit of the originators, and involved the destruction of the explorers. Thus the great Niger expedition, from proceeding up the river at a wrong period of the year, cost many lives and many thousands of pounds; while the one on a smaller scale, lately sent out under the patronage of the Foreign Office, by paying due attention to Geographical details, has triumphantly returned, without the loss of a single man; and this too after having penetrated 250 miles higher up the Chadda, than had ever been accomplished before, and having remained on the river upwards of four months. The North-west Australian expedition may be given as another case in point. This expedition was undertaken by the Colonial Office, and having cost upwards of £10,000, turned out anything but successful. + The enormous expenditure of public funds

^{*} The word "watershed" is perhaps less correct than water-parting, separa-

tion, division or divide. + The North Australian expedition having at length left England, due attention should be paid to the time of the year at which it is to proceed into the interior.

upon some of the different Arctic expeditions is already too well known.

To resume the subject of the enlightened interference of government in support of the diffusion of Geographical knowledge, it may fairly be assumed that, in a country where the publication of good Maps is so little encouraged by the community at large, there should be no question on this point. Applications to government for grants in aid, might be at once referred to the Council of the Geographical Society for a report upon the case. This has sometimes been practised, and with success; but in others, private applications have been listened to with results not at all commensurate with the expenditure.

When we consider the talent required to devise a Map, varying in principle as well as in detail from its predecessors, and constructed solely for the illustration of one particular branch of Geography; when we reflect on the industry with which the materials are to be collected, the judgment with which they are to be sifted, the discrimination with which they are to be classed, the skill with which they are to be combined, the taste with which they are to be expressed, the accuracy which is to be exemplified in the planwork, the skill and experience wanted in the engraving, the number of unsuccessful experiments which must be made before any one is correct, and the weariness of the correction itself, it is little to be wondered at, that few Maps of this description ever come into existence. Governments do not undertake them, nor Scientific Bodies, nor Joint-Stock Companies; all is left to individual exertion. And what encouragement have individuals to embark in such undertakings, but the pure love of science for its own sake? Maps of this description cannot be brought to light without an outlay of capital such as few private individuals can command. Two or three of them would furnish occupation for many years; and when at length they are completed, in what way are they to be circulated? Maps generally excite so little interest among the admirers of every other description of literature, that they are seldom or never chosen as subjects of criticism in Magazines or Reviews. Noblemen and gentlemen, whose libraries are regularly supplied with every book, even of moderate excellence, almost immediately after it has quitted the press, take little heed of Maps, any one of which contains, for the most part, more abundant and more accurate information, than a long range of quartos can supply. Book Societies are equally ill provided with them. The several Offices of Government, in which one would suppose a ready access to Geographical information would be daily, if not hourly wanted, are reported to be so little self-indulgent in this respect, that a valuable Map of the country or countries which fall more immediately under their care, is seldom found. The collections of Foreign Maps at the Foreign, or Colonial Maps at the Colonial Office, are said to be notoriously meagre in the

extreme. But another obstacle still interferes with the outlay, by private parties, in the improvement of Maps and Charts .- The insecurity of this description of property is perhaps greater than that of any other. As it now stands, the law furnishes but a delusive show of protection of copyright to the slow and conscientious Mapmaker*.

Unwilling as some may still be to agree with any interference of Government for Educational purposes, the most inveterate opponent of centralization will scarcely find fault with the outlay of an annual sum the utility of which would be guaranteed by the written decision of men totally unconnected with the expenditure. The absence of any Central Establishment for the collection and diffusion of Geographical knowledge has been long felt.-Such an establishment, if properly supported, receiving from the several departments of the government such original Geographical surveys and papers as may be forwarded from our own colonies and other possessions, as well as the numerous foreign documents of Geographical import transmitted from our ministers and consuls through the Foreign Office, would be enabled gradually to augment its stores by a vast number of authentic materials of undoubted value, for the construction of good Maps and Charts. If to them were added copies of the various productions of the Ordnance and Geological Departments, the East India Company's Surveys, and others, many of the disadvantages under which our best Map-makers so greatly suffer, would be in part remedied, and the Office might become a great National Depot of Geographical Archives, as useful to the government as to the public.+ In time, and properly administered, the establishment might proceed to extend its usefulness by endeavouring to grapple with some of the irregularities and difficulties under which Geography still labours. Attention might be directed to a systematic classification of Geographical materials; to the formation of a more precise and fixed terminology, and to the

* A dishonest workman in the employ of his superior, is enabled to avail himself of materials necessary to produce an original Map, or he deliberately procures a copy of the originals. With this he leaves, proceeds to another country, and produces a Map; by the publication of which he gains both friends and credit. The law can here scarcely assist the injured party. The thief is poor (a man of straw as the lawyer terms it), and if to be got at, not worth prosecuting. Make it public, denounce the theft, is the next thought; but the robbery remains to be *proved*; no easy thing at all times and under all circumstances, when contrasted with the "glorious uncertainty of the law," and the Geographical knowledge possessed by the bar and the jury. Many other cases in point might be given, but the question is, what remedy can be proposed? and the answer is, refer the disputed question to the arbitration of Geographers. In this case the solution of the question would not rest upon chance, or on perhaps the evidence of a perjured witness, but upon the experi-ence and knowledge of a body of practical men, perfectly at home upon the subject. At any rate, the reality and extent of the mischief is given, and an antidote proposed. **†** The Maps and Charts of the British Museum, where space is greatly wanted * A dishonest workman in the employ of his superior, is enabled to avail

+ The Maps and Charts of the British Museum, where space is greatly wanted, might very appropriately, as well as usefully, be added to this collection.

much wanted improvement in our Geographical nomenclature. Besides these objects, more attention might be directed towards the adoption of a universal standard for horizontal dimensions. Why should not Map-makers adopt the Geographical or Nautical mile with its sub-divisions, or at least insert it as an invariable accompaniment to those in their Maps? It was formerly like circle sailing employed, and has the preference of being universally known. With regard to perpendicular projection, it has been, long ago, proposed to adopt the Geographical mile with its sub-divisions to express heights by a positive (+) sign, and depths with a negative (-).* Who has not been perplexed in the often useless effort to reconcile the English league with the French, the French with the German, the German with the Italian, that with the Swiss, Danish, Swedish, Russian, &c.?

The same confusion exists with respect to longitude. Ptolemy and the ancients fixed the common departure at the Canaries, whence it was moved to the Azores; the Dutch transferred it again to the Canaries; Arab Geographers preferred the Khubbah Harina;† the French adopt Paris; the Spaniards, Madrid or Ferro; the English Greenwich ; and the Americans appear desirous of having one of their own at Washington or New Orleans. Again, why have two departures, one east, the other west? In the celestial globe we measure all round, why not on the terrestrial? Nature having pointed out a common start for latitude, why should not Geographers agree upon one for longitude ?-Such are a few of the numerous points that occur more directly in the way of Geographical simplification; but many others will doubtless force themselves on the mind of the investigator. The want of a Geographical "Catalogue raisonnée" of all existing Maps and Charts, may be quoted among these desiderata. A compilation of this kind would perhaps exhaust the powers of any one individual, but might be accomplished by the well-directed efforts of a combined body. Such a Catalogue might be from time to time compiled from the answers to a set of queries in a tabulated form, in which the receiver would insert the title, scale, meridian, place of publication, date, number of sheets, dimension, and any other remarks which might occur to him as bearing on the object in view.1

^{*} Better perhaps to express the depth by the negative (---), leaving the height without the positive (+). + See Admiral Smyth's Mediterranean, page 327.

[‡] Although, in the compilation of this Notice, the writer has freely drawn upon the works of several distinguished Geographical scholars, he holds himself alone responsible for the opinions expressed in it.



