

SHEET-LINES

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WHEN maps were copper engraved and printed there was, of necessity, a rigid sheet-line system. There was no easy way of changing area, and since the sheets were in those days small, the most absurd divisions resulted. London, Carlisle, Cheltenham, Derby, Dumfries, Glasgow, Inverness, Loughborough, Oban, for example, were all cut by the 1-inch sheet-lines into two or more parts. Some of the 1-inch sheets had but one or two square miles upon them; Portsmouth, Worthing, Eastbourne, Felixstowe, Whitby, and many others appeared on sheets which gave no idea of their land approaches. It was not so much that the convenience of the public was forgotten as that the technical processes involved insisted on this rigid and uncomfortable division.

Presently lithography came to our aid. The bicycle was enlarging travel and the folding was easier and more efficiently done. Sheets became larger and were printed from stone, the work being transferred thereto from the copper originals. It was early however to recognize the freedom which this change offered. Sheet-lines were still considered as fixed by the combined plates. The various scales, 1-inch, $\frac{1}{2}$ -inch, and $\frac{1}{4}$ -inch, were arranged on the same index in multiples without considering the possibility of redesigning the sheet-lines of each scale to suit local convenience.

It was at this stage in our history that we began to issue District Sheets to meet local requirements. Strangely enough these early district maps were not published in full colour. They were just the black outline with one coloured road plate. They did however have some vogue. Perhaps they never attained their full usefulness because of the system or systems then used for identifying a point on a map. A reference such as "Sheet 44, 1-inch S.W. of the third l in Llanelly" can apply only to one sheet. It cannot be universal and is bound to retard freedom in altering sheet-lines.

Maps were at this time of increasing interest to soldiers. The South African War and the Staff College between them were responsible for staff rides, exercises, and manoeuvres innumerable, and the overlap system adopted by some map-publishing firms became very popular. The Ordnance Survey did not then adopt this solution, although it has later done so. An overlap is some conventional one or two inches or miles added to two sides of each sheet (say north and east) thus overlapping the sheets south and west. This sort of arrangement removes one a step from the danger of being at the corner, and, since the sheet-lines of that period gave little information, an overlap made it easier to find the way from one sheet to another.

During the Great War we were blessed with a fairly good system of map reference and rectangular sheet-lines. It was easy enough to patch and alter, especially as one did not get to bed until the work was done. Most eminent soldiers about to fight a battle had special sheets with enough room on one side for preparatory manoeuvres and enough on the other to hold out some hopes of territorial gain. Then administrative arrangements refused to be arbitrarily curtailed within sheets, and training areas, traffic controls, and a host of such

A Sheet of the One Inch First Edition (1881).

WORTHING

Sheet 333

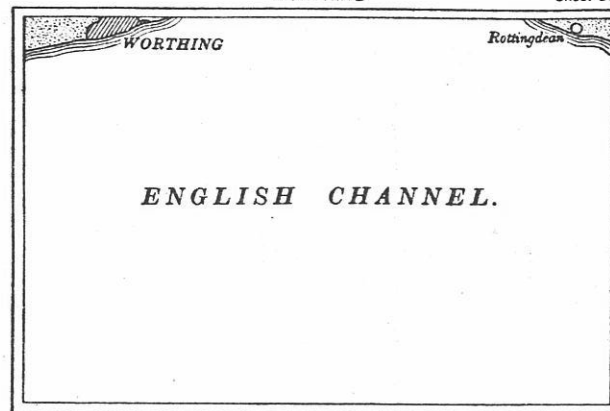


Diagram 1

Sheet Lines of No. 132 One Inch Popular Edition and the special Sheets found necessary for local convenience.

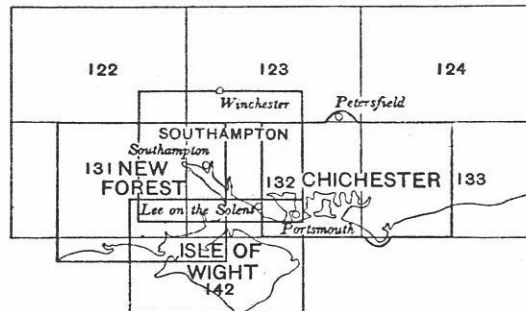


Diagram 2

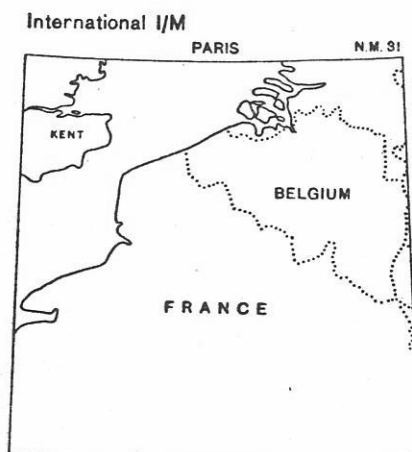


Diagram 3

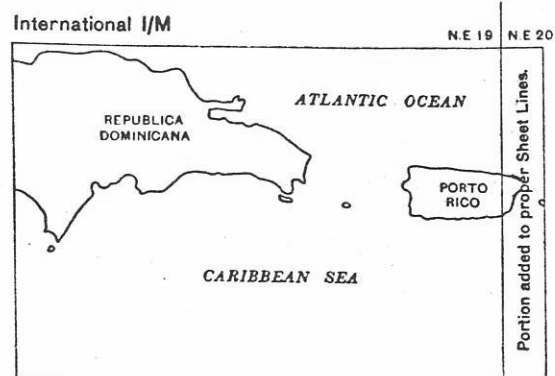


Diagram 4

matters meant more patching and matching. More interesting perhaps were the special area maps, such as The Artois Front and The Picardy Front, which expressed a real individuality of physical type and therefore of minor tactics. For obvious reasons one learns in war to serve one's audience without giving way to either conservatism or inertia. Curiously enough I met few soldiers who wanted an overlap, though many who were "at the corner of four sheets." An overlap is of little value if the referencing is easy and margins are helpful.

After the war Sir Charles Close began those measures which, together with the growing map sense of to-day, have kept our salesmen and our machines busy. The taxpayer began to reap where he had sown and the man in the street began to criticize and select. Recent years have made it abundantly clear that we must for ever be rearranging sheet-lines for his convenience, or very naturally he will not buy. There appear to be three general considerations which govern his taste in sheet-lines. Local patriotism, business convenience, and individuality of physical type.

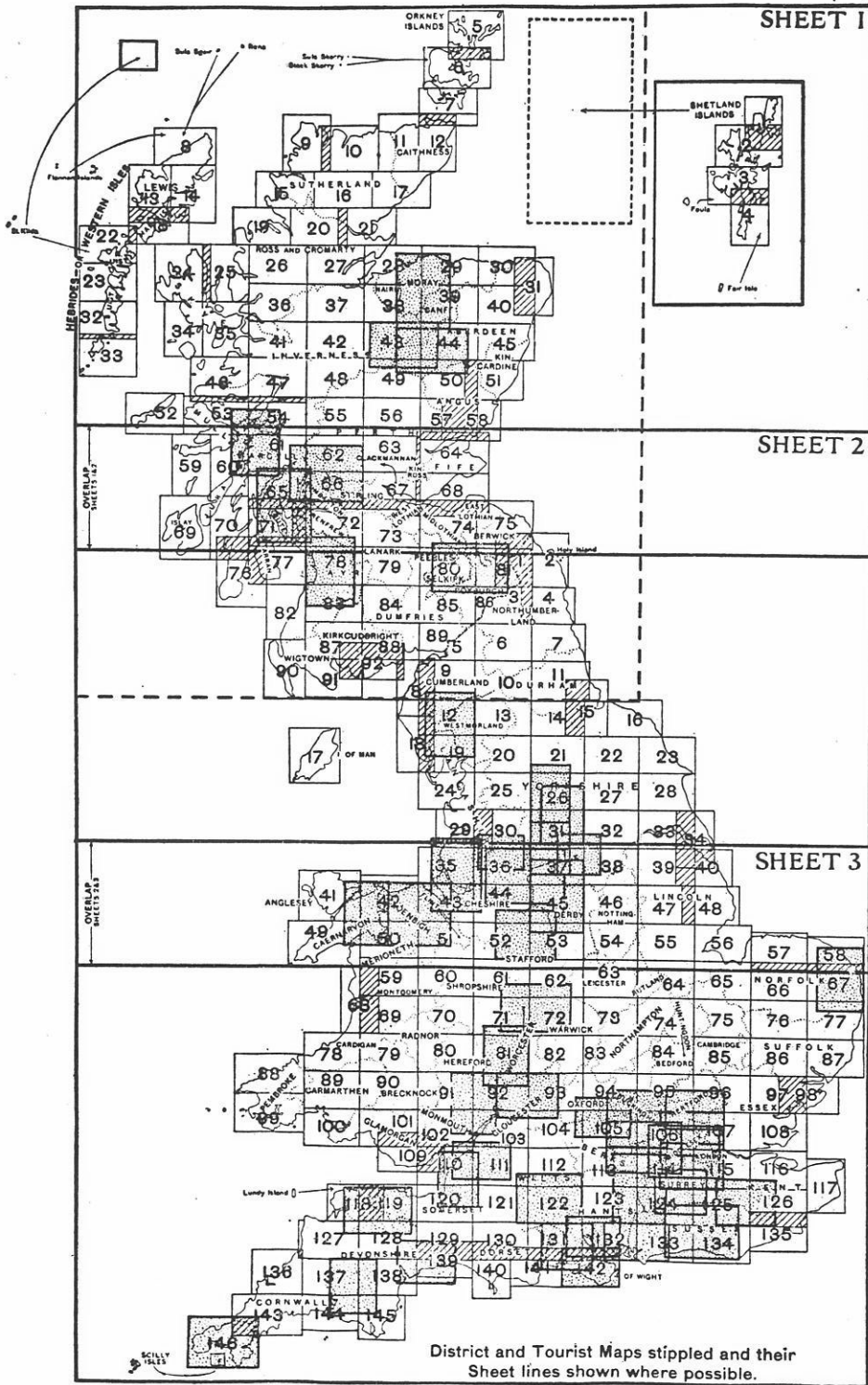
Devonshire falls very happily upon two sheets of the $\frac{1}{2}$ -inch which used to be called respectively, Bideford Ilfracombe and Tiverton, and Plymouth Torquay and Exeter. Local patriotism suggested the better titles North Devon and South Devon with the happiest results. This fact makes it clear that the $\frac{1}{2}$ -inch is a convenient County scale and might be so used. That excellent map the Ten Mile was brought out in three sheets with a generous overlap. But No. 1 did not include the whole of Scotland. We ate humble pie and added as much as would reunite her in one sheet. This happy but simple solution, which has revolutionized sales, might well have been a matter of initial policy. But patriotism is not everything. There is an excellent 1-inch of Aberdeen which shows a long strip of land. It includes however a good deal of sea, and in the words of a map agent of those parts is "scarcely a good return for the money." One wonders what local patriotism has to say in connection with those "insets" sometimes used to include outlying islands or promontories. A case in point is that of the Scilly Islands. Hitherto they have formed an inset on the nearest 1-inch sheet of Cornwall. We are going now to produce a separate 2-inch to the mile sheet of the Islands themselves, and I suspect that the change will be welcomed by both natives and visitors.

Business convenience is more formidable both to understand correctly and to cater for. Consider the Portsmouth-Southampton 1-inch sheet. It is admirable for an inhabitant of Lee on the Solent, but of little value to a Pompeyite, and less to a Southamptonian. This fact has led immediately to three special sheets, one of Southampton, another of the New Forest, and the third of Portsmouth and Chichester.

It would not be wise to break up the regular design and sequence of sheets to meet each such case as the foregoing. For purposes such as regional planning it is essential to maintain a regular series which can be joined up easily. Here we come as a matter of curious fact to one of the grave inconveniences of an overlap system. It is evident, none the less, that every case of awkward business design in the general scheme must be amplified by special district or tourist maps.

The sheet-lines of the new $\frac{1}{4}$ -inch, by far the best motoring map, were derived directly from the $\frac{1}{2}$ -inch, but made two real howlers: they separated

DIAGRAM
showing the Sheet numbers of the
TEN MILE & ONE-INCH POPULAR EDITION MAPS
of the Ordnance Survey of Great Britain

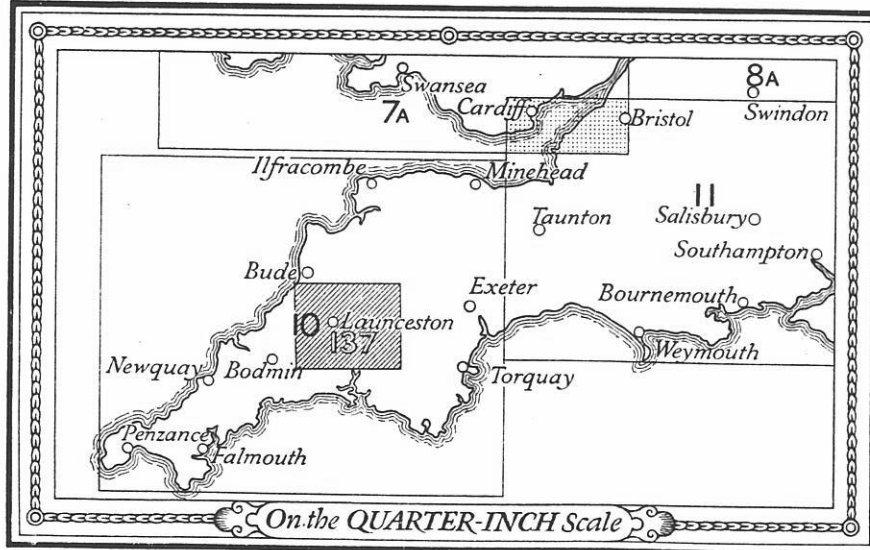
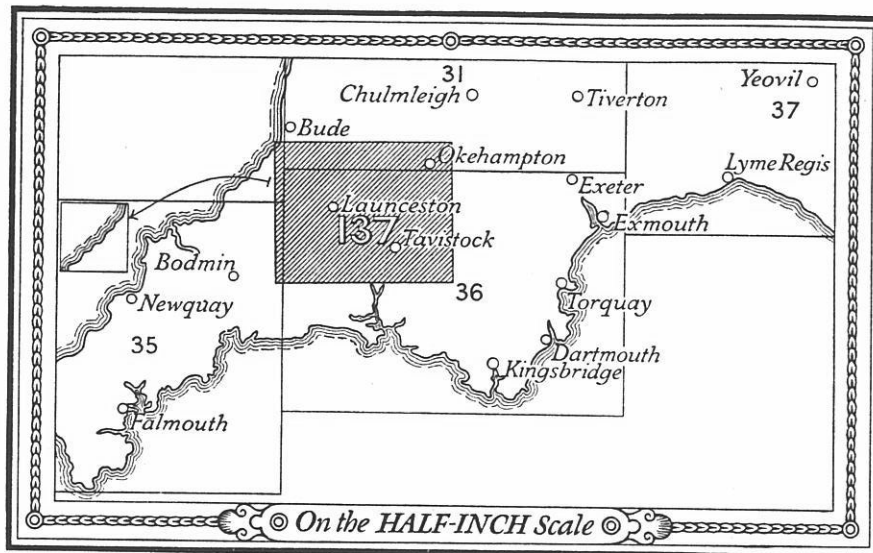
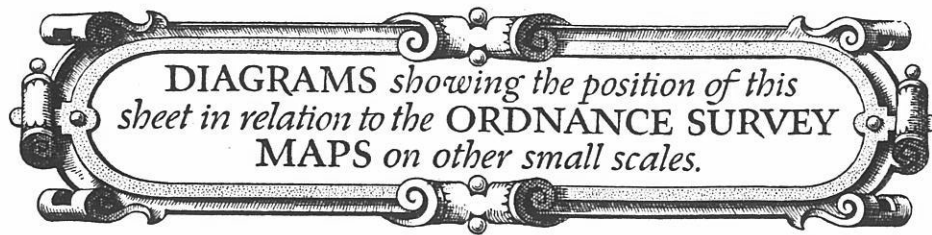


the business centres of the West Riding and of Lancashire, and they separated Edinburgh from Glasgow. The more human division of our later sheets has done much to add to their popularity. This is an instance of a division natural on the $\frac{1}{2}$ -inch but quite inapplicable where applied to the smaller scale and larger area of the $\frac{1}{4}$ -inch. London of course offers such a market that one can afford to offer a choice of business sheet-lines. The normal 1-inch cuts London into four quarters (with a generous north and south overlap). But there are also the North London and South London sheets, and that most useful of all: London and the Country round.

Individuality of physical type may become important on account of work or of play. So far as is possible every area of real individuality has its own sheet whether Tourist or the humbler brother the District Map. In Great Britain we have no less than fifty-seven such sheets on the 1-inch (for example The Lake District), and two on the $\frac{1}{2}$ -inch (where the area is too great for presentation on a single 1-inch: for example The Cotswolds). New centres of population, new movements such as hiking, new playgrounds such as Whipsnade, must and do mean new sheets, and yet the ordinary series does not seem to suffer.

Corners are naturally more tiresome as they grow comparatively more frequent. To remove a man from his corner on the 25-inch in any large or systematic way is beyond praying for. Yet even here a strict adherence to pattern may become ridiculous. The island of Inishmurray is cut into quarters by sheet-lines which are not of any real importance. Special sheets can always be made up (as, for example, in town planning), but normally only at the charges of the unfortunate victim himself. On the 6-inch a little more can be done. We are beginning to put together, by direct transfer, the portions of any town torn ruthlessly asunder by sheet-lines and to put the result on the market as a town map. These maps are considered simply as aids to finding the way and not important in accuracy or durability. They are printed, without touching up, on cheap paper.

At the other end of the gamut, on the very small scales, it is possible to escape sheet-lines altogether in so small a country as our own. By employing the Ansel folding, for example, a man may use a 10-mile map from John o' Groats to Lands End and never be on edge or corner. A small-scale series may however show very awkward sheet-lines if more than one sheet is required. It is perhaps with the International 1/M that one finds the greatest difficulty. There is something rather pleasing in a series which treats national boundaries with so little respect. As the gaps in this series fill up and as people learn how much a map can help in synthesis, how much more it can show relative values than many books, so the popularity of the international sheets will grow. They will never get much of a market because the sheet-lines are so dreadfully inconvenient for every-day national use. A sheet which separates Kent from England and joins it to France and Belgium will not, for ordinary use, appeal even to those two gentlemen, the man of Kent and the Kentish man. Following the Danish example we are now joining up our eight international sheets so as to cover Great Britain with two (with a generous overlap between them), while of course retaining and keeping up to date the true international sheets. The international sheet-lines have however proved useful to those who desired to



End-papers of a modern one-inch map
(172)

make a contribution and who had some suitable promontory or corner separated off by obliging sheet-lines, and yet suitable for the purpose. Sometimes, even for international treatment, the conventional divisions should be ignored. Undoubtedly the American Geographical Society did a wise thing in extending the eastern edge of sheet N.E.19 (Santo Domingo-San Juan) to include the whole of Puerto Rico.

There is a moral for map-makers in all this. If dividends are important, then sales must be coaxed. It is not much good to-day offering a man something he does not want, and he is quite right to consider that sheet-lines are made for his convenience and not he for theirs. Three things are however of great importance in all this jugglery. A good system of reference independent of sheet-lines, a rectangular pattern of sheets, and good marginal and end-paper information. Perhaps margins and end-papers deserve a note or two. A fifty-year-old margin is not very helpful. It may direct you to the neighbouring market town, but if it does the name and the distance will be given extremely small. In these days the quietest of folk move much faster and farther, and the margin directs them clearly and plainly perhaps to London, or perhaps to the county town. I cannot imagine much difficulty nowadays in passing from one map to another. End-papers help in their way, for in the extremely modern map will be found on, or inside, the cover, indexes which place the map in question on other scales and on the countryside. There is such and such a town and there is the sheet-line.

Some day perhaps we shall have A and B series, the one overlapping the other by halves in each direction. Even so there will still be sufferers. Meantime we must be content with a general overlap and the special sheets.

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THE NEW ROAD MAP OF GREAT BRITAIN

ROAD MAP OF GREAT BRITAIN (FROM JOHN O'GROAT'S TO Land's End) showing Ministry of Transport Road Numbers and Classification. *Scale: 10 miles to 1 inch. Ordnance Survey 1932. In two sheets, each 1s. flat; dissected and mounted on the Ansell folding, in covers, 6s 6d*

THIS map deserves notice for several very different reasons, not all of them suggested by the title. It is the first general map of our country to show the Road Numbers which are now painted on signposts. The map is therefore indispensable to judicious drivers, and has plenty of interest to those who are not, but like to browse on a map, and on this to speculate why the Ministry have exalted one road and degraded another. Class I roads are shown red, but in two grades, Nos. 1 to 99 heavier than the rest, and No. 1, the Great North Road, in a grade by itself. In choosing the first hundred the Ministry seem to have looked ahead to the time when the new arterial roads about London are finished, and perhaps to have classified for commercial heavy traffic rather than for private cars. The private driver may rather seek than avoid the thin purple of Class II, which are mostly, if not all, perfectly good roads and quieter than the roads in red.

The map of Great Britain without railways, and with a light but effective brown hill shading, shows up very effectively which are the wilder parts of the country. The blue plate is a little pale; there are neither contours nor spot heights, these being among the "irrelevant detail" omitted from the "simple road map." But it is going a little far to treat as irrelevant those parts of France and Northern Ireland which come within the sheet lines. The explanatory leaflet within the back cover properly calls attention to the fully coloured layer map on the same scale which shows very much more detail, but not the road numbers; and remarks