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C. BONNAIRE

2,118,964

MAP, TIMETABLE, AND THE LIKE

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Fig. 1.

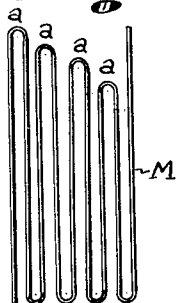


Fig. 2.

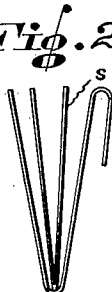


Fig. 3.



Fig. 4.

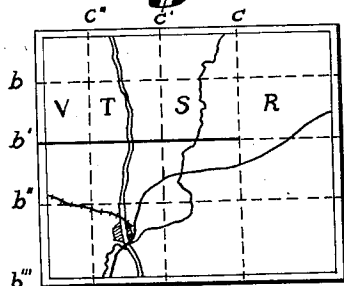


Fig. 5.

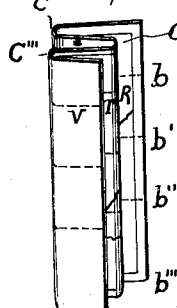


Fig. 6.

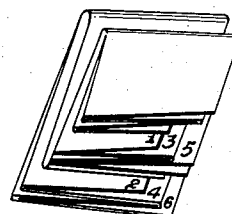


Fig. 7.

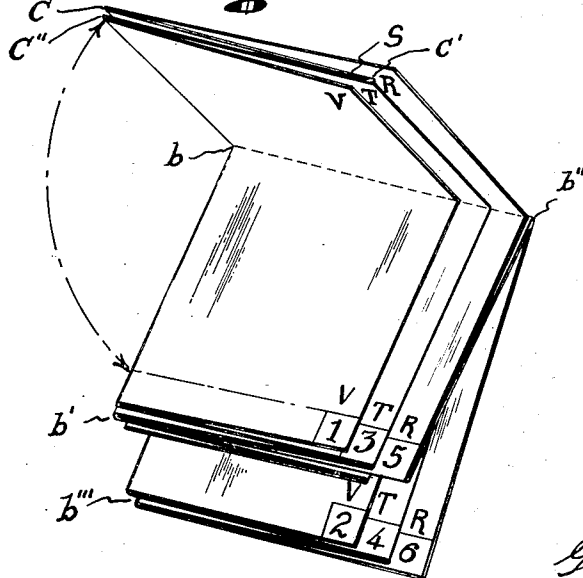
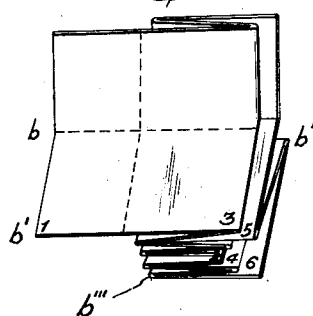


Fig. 8.



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UNITED STATES PATENT OFFICE

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MAP, TIMETABLE, AND THE LIKE

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2 Claims. (Cl. 281—5)

This invention is directed to an improvement in maps, time-tables and the like involving a single sheet interfolded in a particular manner for area reduction, with the interfolding perfected in a manner to provide complete accessibility to any fold individually, with further provision of visible indexing to all folds required.

It has been heretofore proposed, in order to facilitate the perusal of maps, time-tables or the like, to fold a sheet or strip in a step-like manner or to affix offset indexes at the outer edges of the folded sheets. This arrangement is not particularly serviceable, however, because it is not, under such an arrangement, possible to index a middle surface of a large sheet folded upon itself nor is it possible to expose to view such middle surface of a large sheet independently of the surrounding surfaces.

The primary object of the present invention is the folding of the sheet to permit a clear visibility of any part or parts thereof independently of any other part or parts without completely unfolding the sheet and at the same time to provide a completely visible index preferably for each and every folded portion of the sheet to facilitate convenient inspection of any selected part without the necessity of exposing to view or disturbing the parts not so selected.

In carrying out the invention, the sheet forming the map, time-table or the like will be first folded in return bend folds in any desired manner, preferably in step-like relation to obtain exposed areas at the margins, these primary folds being as many as are required, with such sheet following the primary folding being folded over for a secondary folding in step-like relation by return bend folds on lines at approximately right angles to the lines of primary folds, so that the primary and secondary folds or margins will intersect or cross one another in at least two distinct sequences. This will result in part sheets being exposed to provide indexing areas, and if the sheet carries data on both surfaces, the folded sheets may be divided along the line of fold, except the first fold, to permit access to the front or rear of any folded sheet, without the necessity of completely opening the sheet.

The invention is illustrated in the accompanying drawing, in which:

Figure 1 is a front view showing one type of folding.

Figure 2 shows a folded sheet with an insert.

Figure 3 is a front view showing the formation of a type of tabs for the folded sections.

Figure 4 is a front view of a sheet showing the lines of the primary and the secondary folds.

Figure 5 is a view of the sheet folded into primary folds.

Figure 6 is an inverted perspective showing the primary and secondary folds approaching that relation providing a normally folded article.

Figure 7 is a similar view showing one of the secondary folds being open to permit access to the sheets formed by the primary folds throughout that area.

Figure 8 is a similar view showing the sheet opened at a primary fold permitting access to all the primary folds of that section.

The primary fold may be carried out in various ways, each of the sections provided by these primary folds being more or less superimposed and preferably, as shown for example, in Figure 1, being folded in a manner to present exposed margins *a*. The sheet, according to the requirements, may be folded in progressively succeeding return folds as indicated, for example, in Figure 5.

The character of the foldings is such that they show intermediary folding that can be used for exposing parts of the sheet after several directly superimposed folds or such as to provide for attaching strips between the fold sections or a cover. Figure 2 shows a fold with an independent strip *s* folded and inserted within the primary fold. The edges of the folds or the inserts may be cut out or bear tabs, in the manner indicated in Figure 3 for index purposes.

Following the primary fold, with or without the intermediate folding in similar planes as illustrated and described, the sheet is further folded along selected lines of fold at approximately right angles to the lines of the primary folding. This latter or secondary folding may obviously be carried out in a manner substantially similar to the primary folding, yet will always be folded in step-like relation in order to obtain exposed areas at the margin, of each primary fold which is included between the secondary folded sections; if the secondary folding is, for example, in accordance with the character of folding illustrated in Figure 1, there will result exposed margins of the folded sections incident to such secondary folding.

The primary folding provides a series of sections in interfolded relation, the margins of which are preferably relatively offset, and following the secondary folding, each section of such secondary folding will include a part of all of the sections of the primary folding. If the sec-

ondary folding follows an arrangement in accordance with, for example, the primary folding, the secondary folding, when completed, will also present exposed margins for each section of the secondary folding. Therefore, as thus completed, the sections incident to the primary folding will each have an exposed margin which, for the sake of clearness, will be referred to as an index margin, and then each section of the secondary folding which, of course, includes all the sections of the primary fold within the plane of the secondary fold section, will have an exposed or index margin which is particularly or peculiarly adapted to that secondary fold section.

Figures 4 to 8 may serve as a general example of the folding. If the main sheet (Fig. 4) is folded into the primary folds in the longitudinal direction according to the method of folding, for example, shown in Figure 1 to thus provide the primary folds $c, c', c'',$ etc., into the longitudinal sections R, S, T, V, (Fig. 5) and the sheets so folded receive a further or secondary folding at right angles to the primary folds, for example, on the folding lines $b, b', b'',$. . . with each of such secondary folds at relatively different distances apart, one end of the sheet so folded will present relatively exposed free edges exactly similar to those resulting from the primary folds.

If desired and as preferred, each primary fold section, except the main underlying section, may be cut through on every second secondary folding (line at b' Fig. 4) which will, of course, divide the folds or sections of the primary folding from each other along the lines of each alternate line of secondary folding, so that the sheet as a whole is made up of connected primary fold sections which are each subjected to a single secondary fold so that, when that particular secondary fold is opened out, (Fig. 7) the sections included in that particular secondary folding are presented flat in primary fold relation and preferably with their margins offset, so that any primary fold of this secondary fold section may be opened out for inspection (Fig. 8). Of course, the primary folds and also the secondary folds may be constructed in any number in accordance with the size of the original sheet and with the desired size of the completed article after folding, the primary purpose of course being to permit the sections of any one secondary fold to be opened out to provide independent access to the sections of the indexed primary fold included therein.

As the sheet is folded longitudinally in second-

ary folding, that is the lines of secondary folds extend at right angles to the length of the sheet as resulting from the primary folds, it is apparent, that any two or more secondary folds may be opened out to provide access to additional lengths of primary folds. Furthermore, in this type of folding, convenient access to any primary fold section on either face thereof is provided for, thus permitting the sheet to be printed on both surfaces with any selected material readily available without the necessity of opening up the entire sheet.

The combined fold of this character provides a multiple character of index. As the exposed margin of each of the primary folds may be indexed or marked according to the character of showing on that fold and the exposed section resulting from each secondary fold may be appropriately indexed as to the character of showing on the respective primary fold sections included within that secondary fold, any particular portion of the showing printed on the sheet as a whole is not only conveniently accessible but is also conveniently marked or indexed to be readily and definitely selected with certainty and without loss of time.

The individual sheets may be printed in different colors or be themselves of different color, or may be made of any material, even different materials, or be made up of sheets having colored bands which are parallel to or cross one another.

Any of the sheets, parts of the same, or the cover may be used to bear additional plans or text such as advertisements, illustrations, etc. Cross reference over the parts of a map that has been separated by part cuts will be facilitated by the indexes.

What is claimed is:

1. A sheet of material having imprinted thereon a diagrammatic representation such as a map, which is folded into a number of sections along substantially parallel lines at a progressively increasing distance from each other, the edges on one side of the folds registering with each other and folded again into a number of sections along substantially parallel lines but transverse to the first set of parallel lines, whereby sections with successively exposed edges parallel to each set of fold lines are formed.

2. The device as claimed in claim 1 in which a fold line is cut along a portion of its length whereby the sheet may be readily opened to display only a small section thereof.

CLAUD BONNAIRE.