

March 24, 1925.

1,531,065

S. E. BOYER

BOOK FOLD MAP

Filed Dec. 27, 1922

2 Sheets-Sheet 1

Fig. 1.

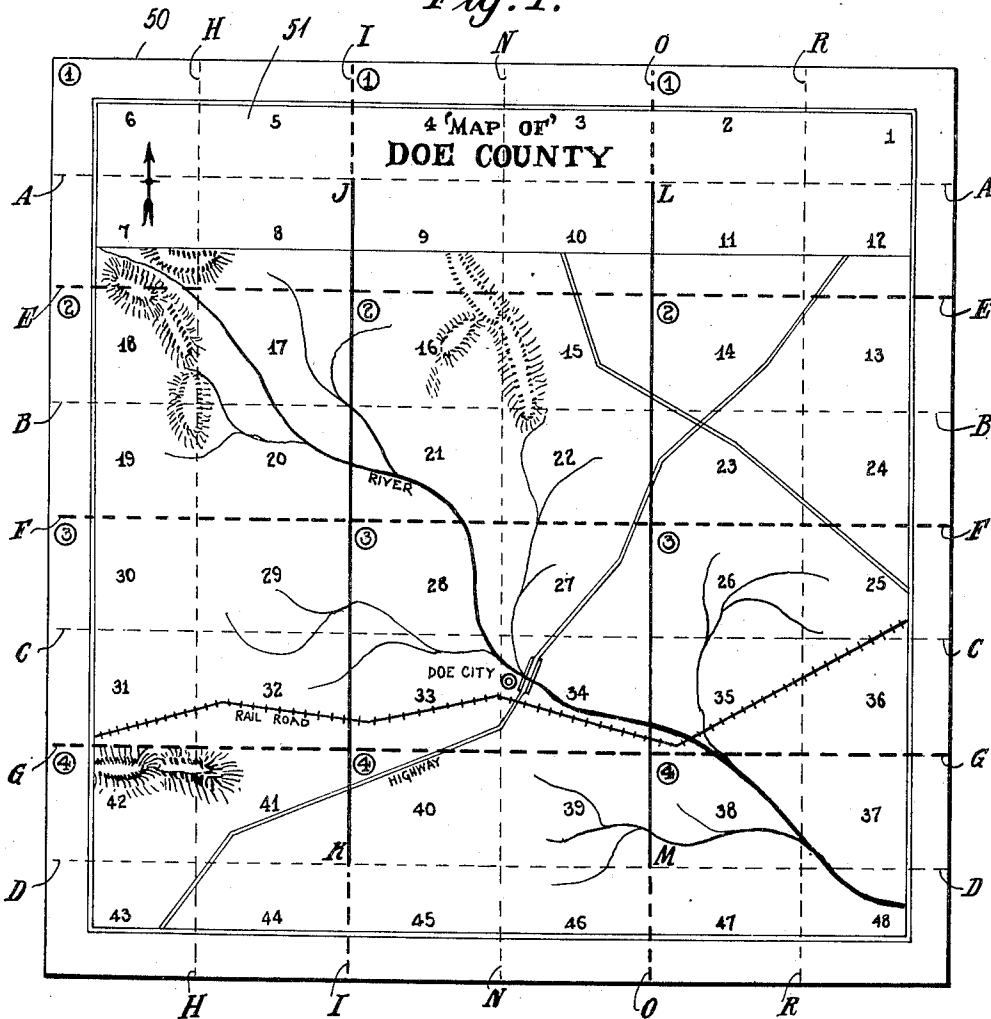


Fig. 2.

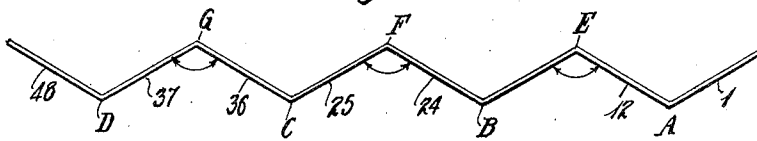


Fig. 3.



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2 Sheets-Sheet 2

Fig. 4.

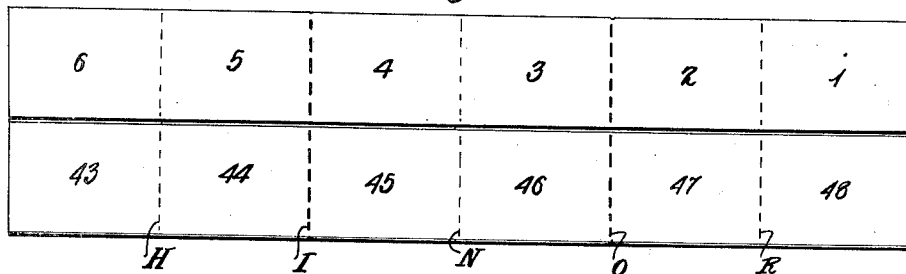


Fig. 5.



Fig. 6.

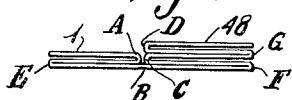


Fig. 7.

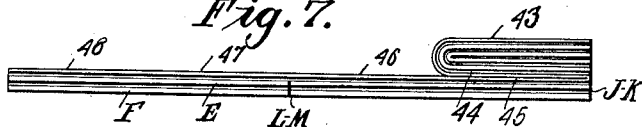


Fig. 8.

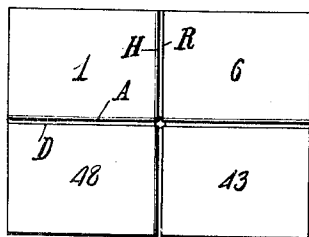
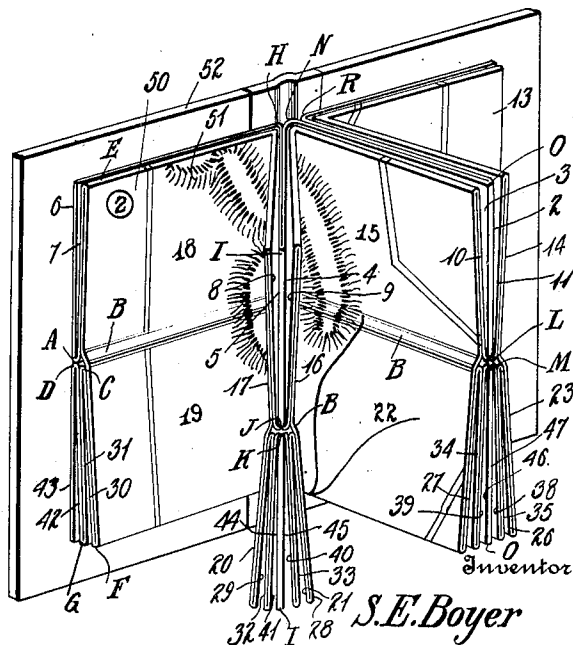


Fig. 9.



By

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UNITED STATES PATENT OFFICE.

STACY E. BOYER, OF CASPER, WYOMING.

BOOK-FOLD MAP.

Application filed December 27, 1922. Serial No. 609,189.

To all whom it may concern:

Be it known that I, STACY E. BOYER, a citizen of the United States, residing at Casper, in the county of Natrona and State of Wyoming, have invented certain new and useful Improvements in Book-Fold Maps, of which the following is a specification.

This invention relates to maps or charts used in travel, exploration and navigation, in all kinds of weather, and to maps used in offices for reference or otherwise, and particularly to maps whereon continuous routes, trails, or roads are desired to be traced, traveled or traversed, and where a large scale map is desired without the inconvenience incident to the handling of such large scale maps.

An object of the invention is to provide a map for motor tourist and travelers on a sufficient large scale to be readily comprehensive and understandable for purposes as aforementioned and at the same time compact and easy to handle with reference to the following thereon of continuous routes or systems, such as roadways, mountain ranges, rivers, channels, trails, railroads, and points of equal elevation as established by the U. S. Geodetic Survey.

A further object of this invention is to furnish a map continuous in its nature which may be placed within a small folder in association with descriptive matter adaptable to frequent and convenient use and at the same time to be durable and economical.

With the above and other objects in view, the invention comprises an improved map, composing a single part, so cut and folded as to form leaves or sheets turnable in the tracing of routes, etc., as above mentioned, either laterally or longitudinally and consisting further in the combination and novel arrangement as hereinafter more particularly described and claimed.

In order that one may understand and make use of this invention, its construction and composition will be described in detail, reference being made to the several figures of the drawings hereto attached and made a part of this application, in which:

Figure 1 is a view of a map, face up and divided into quadrants for the purposes of the invention,

Figure 2 is a side view of the map, illustrating the first step in folding,

Figure 3 is a view showing the position of the map at the end of the second step,

Figure 4 is a plan view of the map when folded as in Figure 3,

Figure 5 is a longitudinal edge view of the map folded as in Figure 4, showing the second step in folding,

Figure 6, is a view of the map partially refolded, after cutting and pasting,

Figure 7 is a side edge view of the refolded map, showing the fourth step in folding,

Figure 8 is a view of the map folded and ready to be placed into folder or cover, showing quadrants to be fastened to the surfaces of the folder, and

Figure 9 is a view, in perspective, of the completed map.

In the invention, the improved map is composed of a single sheet 50 of paper, cloth, or other suitable material provided with a map face 51 marked out with lines indicating continuous routes, trails, or roads desired to be traced, traveled or traversed. This sheet is divided along its length and width into any number of equal parts, depending upon the size of the sheet and the particular number of folds desired; the division points constituting the termini of the longitudinal and transverse fold-lines along which the sheet is folded to provide leaves or pages, as hereinafter explained.

For present purposes, the accompanying drawings illustrate a sheet divided into six equal parts in width and eight equal parts in length, with the face of the map divided into an even number of quadrants numbered from 1 to 48, for reference only. In folding the map into a book-fold, the sheet is first folded in zig-zag fashion along the transverse fold-lines AA, EE, BB, FF, CC, GG, and DD, making seven folds as shown in Figure 2. The map is then opened along crease FF and placed with the map face up as shown in Figures 3 to 5 inclusive. It is then folded, in zig-zag fashion as before, into six equal parts, creasing HH, II, NN, OO, and RR, as in Figure 5. It will be noted that the map is not opened up to make this step in folding but is left folded as in Figure 3. This completes the preliminary folding of the map, necessary for obtaining the longitudinal and the transverse creases prior to cutting and pasting.

The map is next unfolded and placed with

the map face up as in Figure 1, subsequent to which it is slit along fold-lines II and OO from points J to K and L to M, respectively. These slits permit the various folds

of the map to be turned in the manner of pages when tracing routes, roads, and trails, etc., either laterally or longitudinally of the map, as may be understood, from a consideration of Figure 9. After cutting, the map is turned face down and the entire back, with the exception of the backs of quadrants 1, 6, 43, and 48, coated with paste, glue, or other adhesive. It is then refolded.

In refolding the map, the same is first folded along the transverse fold lines in zig-zag fashion as before, so that the back of each transverse set of quadrants, with the exception of the first and last sets, become glued or pasted together as indicated by the arrows in Figure 2. At the completion of this step, the map is opened along either one of the creases BB, or CC. In the present instance the map is illustrated as being opened along crease BB and placed with the map face down as shown in Figure 6. In top plan, the map as thus positioned will appear somewhat similar to the view shown in Figure 4, with the quadrant numerals however transposed by reason of the inverting of the map, so that quadrants 1 and 48 will appear at the left of the figure and quadrants 6 and 43 at the right, instead of as shown for the preliminary folding.

It will be observed also that quadrants 1 to 6 and quadrants 43 to 48 fold outwardly from the center of the map when the same is folded as in Figure 6 instead of in towards the center when folding according to Figures 3 and 4. The map is now ready to be refolded transversely along the longitudinal creases, as shown in Figure 7. In taking this step, the backs of quadrants 5 and 44 become united with the backs of quadrants 4 and 45 and in like manner quadrants 2 and 47 become united with quadrants 3 and 46, thus bringing quadrants 1 and 48 and quadrants 6 and 43 into juxtaposition as shown in Figure 8. With reference to folding, the map is complete at this stage and the backs of quadrants 1, 6, 43 and 48 may then be pasted or otherwise fastened to a back or folder 52 as shown in Figure 9, at which time the map is ready for use.

By cutting, pasting, and folding the map in the manner described the map face is divided longitudinally into three main parts or sections, each of which is transversely divided into four subdivisions respectively indicated by the numerals 1, 2, 3 and 4 inclosed in circles; corresponding subdivisions of all the parts being similarly numbered. Each subdivision comprises four quadrants and is foldable at the center along longitudinal and transverse creases so as to provide pages

or leaves turnable either laterally or longitudinally of the map in the tracing of routes, etc. from one part or subdivision of the map to another.

For example, it will be seen with reference to Figure 9 that by folding quadrants 17 and 18 downwardly along crease B as a hinge so as to expose quadrants 5, 6, 7 and 8, contiguous portions of the map are presented for the tracing thereon of routes, roads etc. leading upwardly from the lower subdivisions of the map. On the other hand, by turning quadrants 19 and 20 upwardly, the tracing may be continued thru the lower subdivisions of the map. In tracing laterally, it is but necessary to turn either of the group of folds shown at II and OO to the right or left in Figure 9 and to manipulate the turnable folds of each group so that contiguous portions of the map are presented. It will thus be seen that any part of the map may be conveniently exposed whenever desired. As a matter of further convenience to the user, the numbering of the folded leaves or pages from east to west provides an index whereby one can go from right to left and still be in the same corresponding part of the map.

Although the foregoing has reference to a specific embodiment of the invention, it will be obvious that various changes and modifications in the adaption of the invention may be resorted to, such as providing the map with but a single slit in some instances and with a plurality of slits in other instances, without departing from the spirit of the invention as defined in the appended claims.

What is claimed is:

1. A map comprising a sheet provided with longitudinal and transverse fold-lines dividing the sheet into a plurality of quadrants, said sheet being folded in zig-zag fashion on the said lines to bring the four corner quadrants together, said sheet being slit to permit the folded sections to be turned in the manner of leaves on both the longitudinal and transverse fold-lines.

2. A map as recited in claim 1 including a backing to which the corner quadrants are secured.

3. A map comprising a sheet slit and folded in pre-determined zig-zag fashion along intersecting lines of fold to bring corner quadrants of the sheet together in rectangular formation, the intermediate portion of the sheet being thereby formed into sections movable in the manner of leaves on both lines of fold and wholly within the boundary of the rectangle defined by the corner quadrants.

4. A map as recited in claim 3 wherein the back of the sheet is coated with adhesive except at the corner quadrants so that the folding of the map serves to unite engaging

backs of the remaining quadrants of the sheet.

5 5. A mapped sheet provided with intersecting lines of fold dividing the sheet into an even number of quadrants, said sheet being provided with parallel slits extending along said lines of fold and terminating inwardly of the opposite edges of the sheet towards which the slits extend, said sheet 10 being foldable in zig-zag fashion along said lines of fold substantially as herein described.

15 6. The method of providing a book-fold map consisting in folding the map zig-zag fashion on intersecting lines of creases defining an equal number of quadrants, coating with adhesive the entire back of the map with the exception of the four corner quadrants, slitting the map along certain lines 20 of fold refolding the map to unite the contiguous coated portions, opening the re-

folded map along an intermediate crease and then refolding the map transversely to bring the four corner quadrants into juxtaposition.

25 7. The method of providing a book-fold map consisting in folding the map zig-zag fashion on intersecting lines of creases defining an equal number of quadrants, coating with adhesive the entire back of the map 30 with the exception of the four corner quadrants, slitting the map along certain lines of fold refolding the map to unite contiguous coated portions, opening the refolded 35 map along an intermediate crease, refolding the map transversely to bring the four corner quadrants into juxtaposition, and then pasting the backs of the corner quadrants to a suitable backing.

In testimony whereof I affix my signature.

STACY E. BOYER.