Feb. 14, 1956 R. C. BIBLE 2,734,296

ADJUSTABLE CHART OR MAP HOLDER

Filed July 30, 1952

Fig. 1

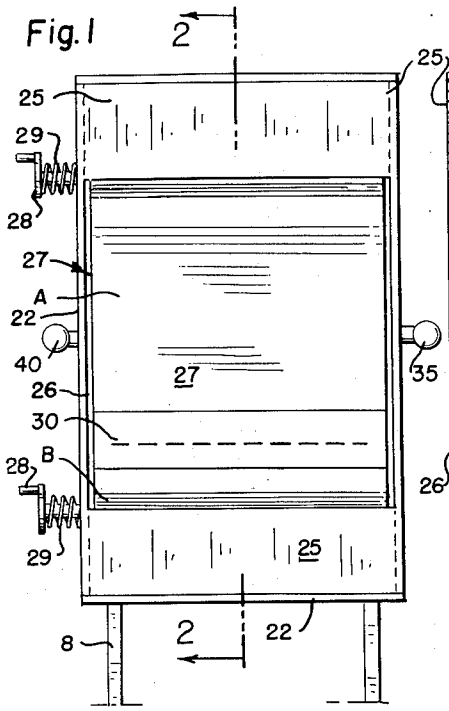
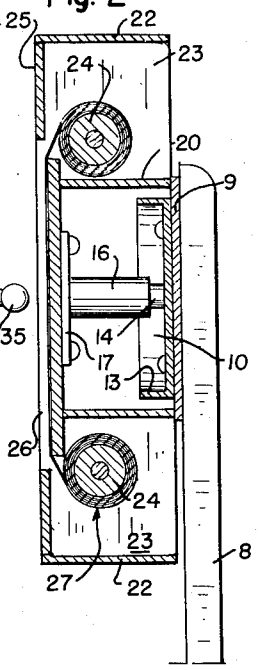


Fig. 2



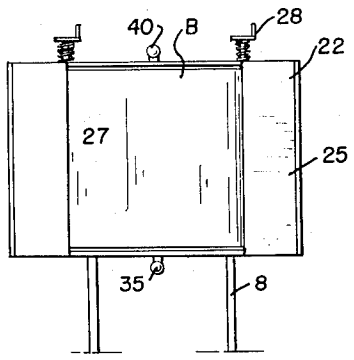
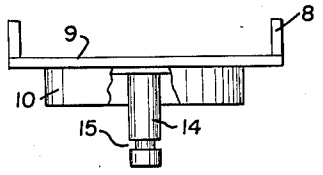


Fig. 7

Fig. 6



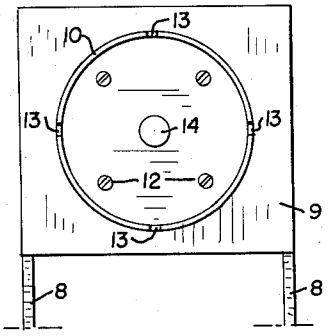


Fig. 5

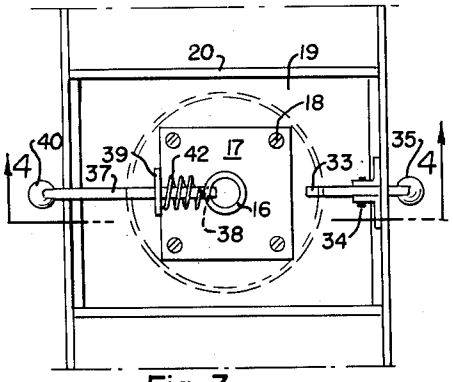


Fig. 3

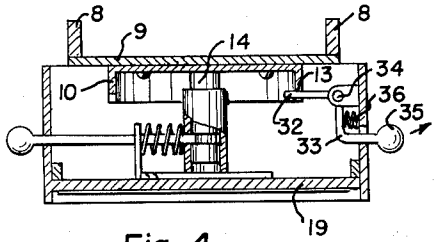


Fig. 4

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ADJUSTABLE CHART OR MAP HOLDER

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Application July 30, 1952, Serial No. 301,774
1 Claim. (Cl. 40—86)

This invention relates to a holder for charts and maps, and especially to a holder that is adjustable by oscillation to two or more positions for normal and convenient viewing.

More particularly, the present invention is concerned with a holder designed to receive material in strip form, portions of the strip possibly being at right angles to others and even in an upside down relationship.

It is my primary object to devise an apparatus for positioning maps, charts and the like for correct viewing of the pictorial representations or the data thereon. Especially, it is an object to handle a roll of interconnected maps and/or charts that are unlike in the sense that some of them may be tilted or reversed relative to the others.

Another object of the invention is to provide a map box that can be mounted for oscillation to a plurality of fixed positions, and in this connection to incorporate means for detachably mounting the box on a support.

These and further objects will be understood from a study of the following description and the accompanying drawing, wherein:

Figure 1 is a face view of a preferred embodiment;

Figure 2 represents a cross section taken on the plane of line 2—2 of Figure 1;

Figure 3 is a fragmentary view in rear elevation of the box of Figures 1 and 2, removed from its support;

Figure 4 is a section taken on line 4—4 of Figure 3, the support being incorporated;

Figure 5 is a front view of the support;

Figure 6 is a top plan view of the support; and

Figure 7 shows the apparatus, in front elevation, after the box has been shifted 90 degrees on its supporting axis.

With continued reference to the drawing, there is shown a pair of standards **8** attached to and supporting a rectangular plate **9**. These standards may be modified or omitted altogether. Some other means may take the place of the plate, whose only purpose is to provide a fixed support for a cylindrical cup **10**. This cup is secured in any suitable manner, as by screws **12**, to the board **9**.

The rim of the cup has at least two notches **13** formed therein perpendicular to the base (four being illustrated), 90 degrees apart for a purpose presently seen. A spindle **14**, coaxial with the rim and welded or otherwise secured to the cup base, extends forwardly to provide a pivotal support for a map box. Its free end is annularly channeled at **15** and telescopic with a sleeve **16**.

This sleeve therefore is rotatably supported by the spindle. It in turn supports, through a plate **17** and screws **18**, the chart-backing board **19** of a map box that further comprises parallel elements **20** secured to the board and a rectangular frame **22** mounted by and surrounding said elements in such manner as to provide a pair of parallel transverse receptacles **23** for a pair of the usual map rollers **24**. At the front of the box these receptacles may be closed by strips **25** which may be considered as representing the bottom of the box, leaving an opening **26** through which portions of a wound strip **27** may be viewed. In conventional manner the rollers have cranks **28**, and frictional springs **29**.

The strip **27** may comprise numerous interconnected sections of maps, photographs, charts etc. Figure 1 shows two such elements, A and B, preferably connected together by a special contrivance **30**, as fully disclosed in my copending application Serial No. 294,411, filed June 18, 1952, now abandoned. Section A can be read

normally, but the top and bottom of section B stand vertically and hence it cannot be viewed quickly or easily. Therefore when B follows A into position behind the opening **26**, the box is manually turned 90 degrees clockwise to the position seen in Figure 7. If picture B had been in reverse, right to left, then the box would have been oscillated 90 degrees in the opposite direction. Had the picture been upside down, a shift of 180 degrees would have been necessary, and this is why four notches **13** are shown in Figure 5.

These notches or holes **13** cooperate with the finger **32** of a bell crank **33** pivoted on a bracket **34** and having an externally manipulating knob **35**. Normally the finger is in any one of the holes and is held there by a tension spring **36** so that the box is latched in a selected position. By pulling the knob outward the box may be oscillated to any other of the three remaining positions.

It is preferable to lock the box axially onto the spindle mount, but to do so in such manner that it can be readily removed. To this end, the tip of an axially slidable rod **37** cooperates with the channel **15** of the spindle **14**, gaining access to the latter through a hole **38** in the sleeve **16**. The rod extends through a bracket **39** and outwardly through the box to a pull knob **40**. A compression spring **42** has one end reacting against this bracket and its other end piercing the rod, thus biasing the rod tip into the groove **15**. Obviously by pulling on the rod the box can be removed or replaced.

As is customary, I wish to be limited only by a reasonably liberal interpretation of the appended claim.

What is claimed as new is:

A device for supporting and shifting a strip chart or the like, and for permitting the chart to be turned about an axis perpendicular to its plane and for latching it in any desired rotary position, comprising in combination a chart box having two sides and two ends assembled to form an elongated rectangle, a bottom member attached to the edges of the sides and ends on one side, and provided with a central opening, a chart backing board of a size substantially equal to the opening in the bottom, having two edges attached to the sides of the box and so positioned relative to the bottom member that its outer surface is substantially coplanar with the inner surface of the bottom, and of an area substantially equal to the opening in the bottom, the length of the opening being less than the length of the box leaving a space at each end for a chart roller, a roller positioned in each of said spaces and journaled for rotation in the sides, a strip type chart having its ends attached to said rollers, means comprising a crank operatively attached to each roller for turning it to shift the chart, a spring pressed friction device operatively associated with each roller resisting rotation thereof, means supporting said box for rotation in its plane, comprising, a pivot attached to the rear surface of the chart backing board, and an elongated bearing attached to a stationary support, and means for latching the box in any of several rotary positions.

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