Feb. 7, 1933. A. E. BLOOMFIELD ET AL 1,896,935

STRIP MAP HOLDER

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Fig. 1.

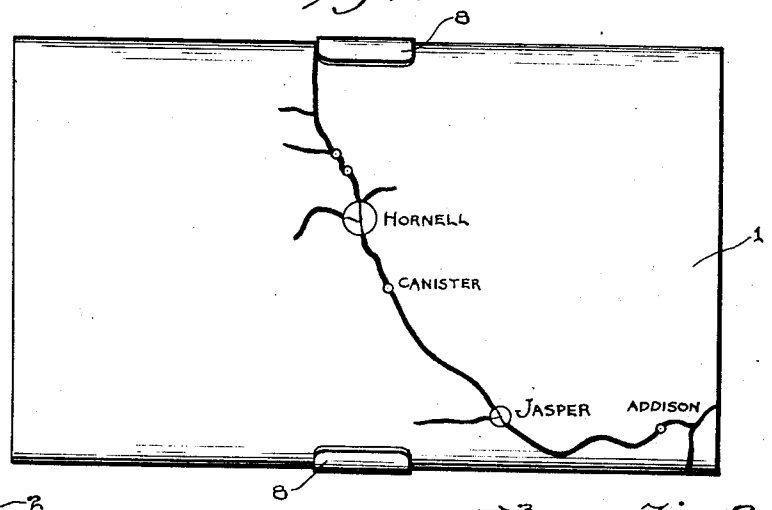


Fig. 3.

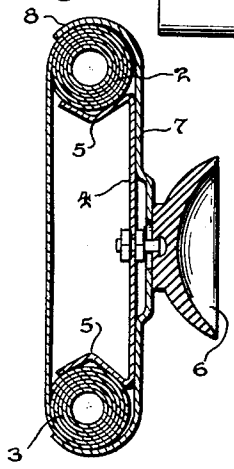
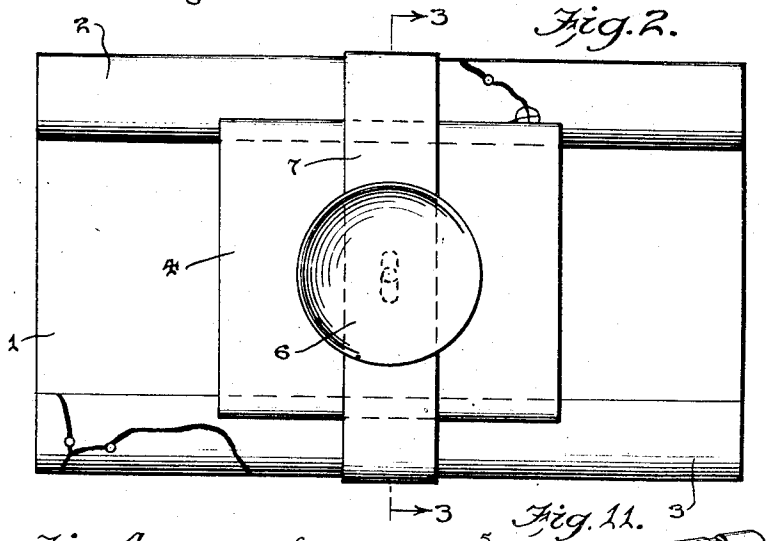


Fig. 2.



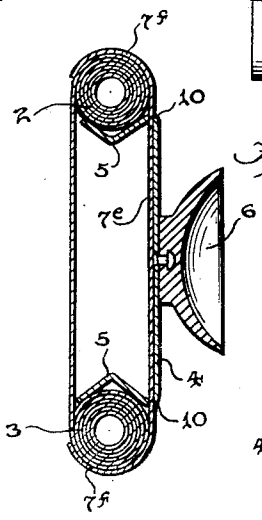


Fig. 4.

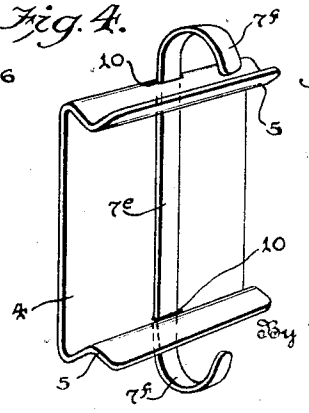


Fig. 5.

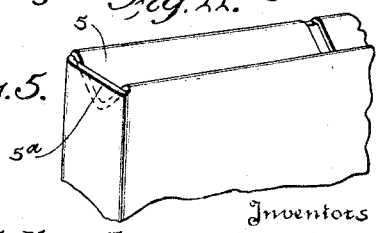


Fig. 11.

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STRIP MAP HOLDER

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Fig. 6.

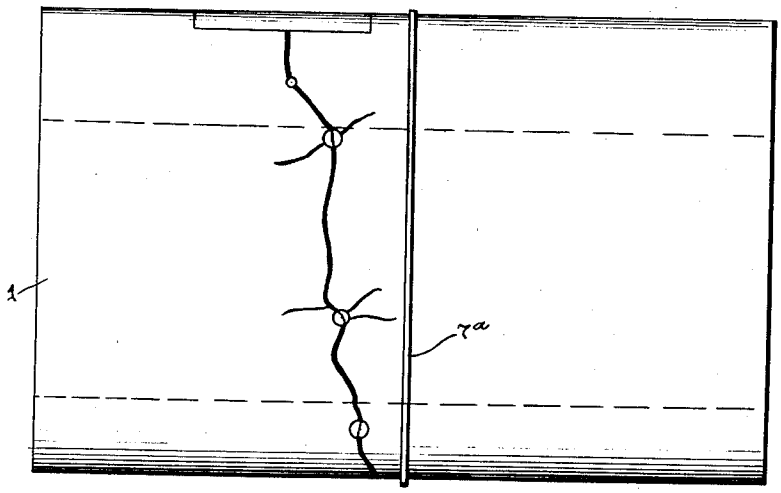


Fig. 10.

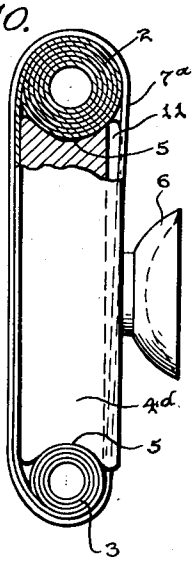


Fig. 7.

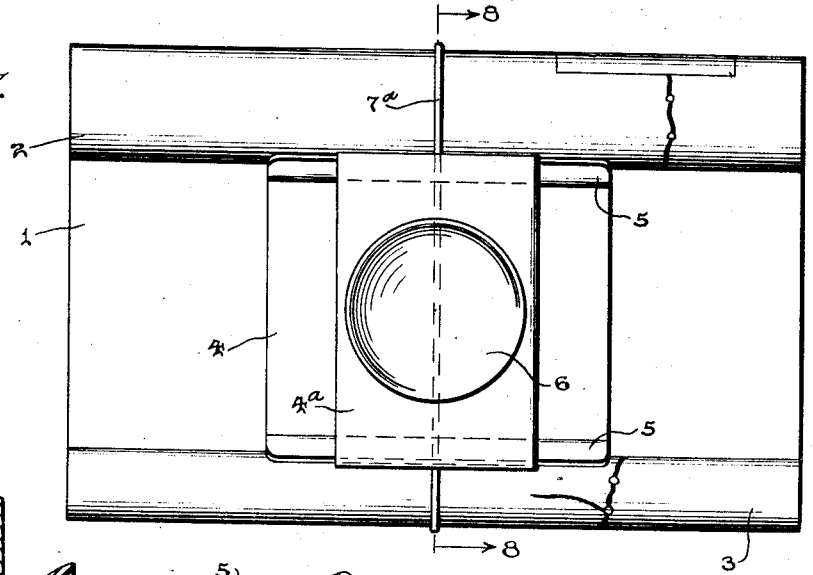


Fig. 8.

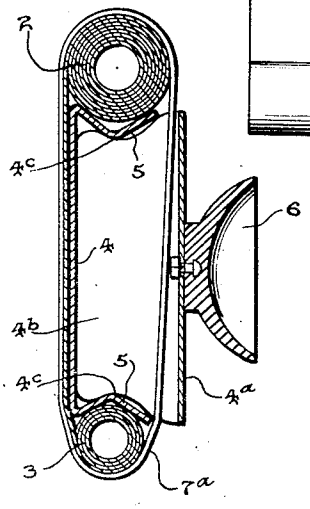
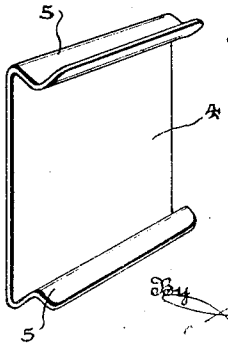


Fig. 9.



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Fig. 12.

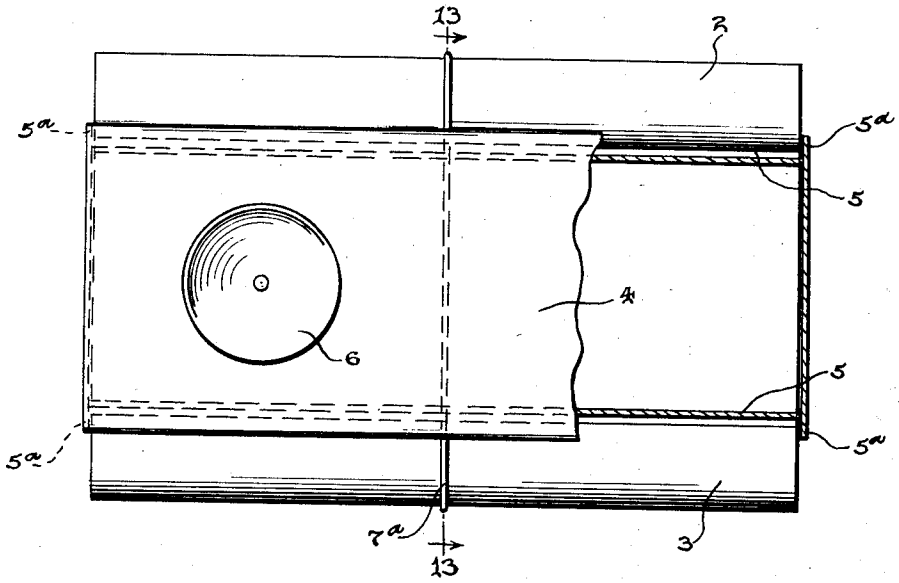
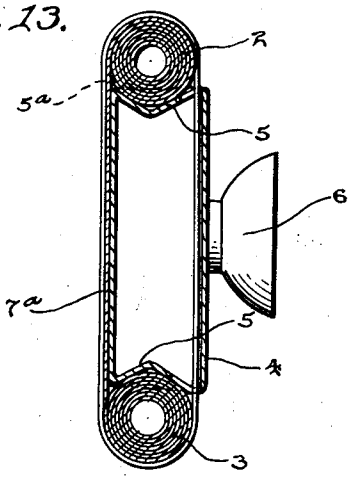


Fig. 13.



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UNITED STATES PATENT OFFICE

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STRIP MAP HOLDER

Application filed December 14, 1931. Serial No. 580,948.

The invention provides a novel and efficient holder for strips having routes, diagrams and other matter thereon so that the strip may be rolled to occupy a small space and for convenience of handling when adjusting the same to expose portions for ready reading of the matter appearing thereon.

In accordance with the invention the designating strip has end portions reversely rolled, a supporting member being disposed between the rolls and maintaining them in spaced relation, and an elastic retainer engaging the rolls and supporting member to hold the parts in cooperative relation and subject the rolls to a braking action to prevent accidental unwinding of the strip and buckling or wrinkling of the exposed portion bearing the route or matter under observation for reading.

For a full understanding of the invention and the merits thereof reference is to be had to the drawings hereto attached and the subjoined description in which corresponding parts are designated in the several views of the drawings and referred to in the specification by like reference characters.

In the drawings:—

Fig. 1 is a front view illustrative of an embodiment of the invention.

Fig. 2 is a rear view.

Fig. 3 is a transverse section on the line 3—3 of Fig. 2.

Fig. 4 is a transverse sectional view of a modification.

Fig. 5 is a perspective view of the modified form of holder illustrated in Fig. 4, the indicating strip being omitted.

Fig. 6 is a front view of a further modification.

Fig. 7 is a rear view of the modification shown in Fig. 6.

Fig. 8 is a transverse sectional view on the line 8—8 of Fig. 7.

Fig. 9 is a detailed perspective view of the supporting member provided with opposite seats for receiving the reversely rolled end portions of the strip.

Fig. 10 is a side view of a further modification, parts being broken away.

Fig. 11 is a detail perspective view illustrating the arrangement of the end wall which is located at each end of each roll receiving depression or seat of the form or embodiment of the holder, as further shown in Figs. 12 and 13.

Fig. 12 is a rear view of a holder in which the supporting member or plate extends the full length of and in fact slightly beyond the rolls carried thereby, a portion of this view being partially broken away.

Fig. 13 is a transverse, sectional view taken on a vertical plane indicated as by the lines 13—13, looking in the direction of the arrows.

The numeral 1 designates the strip upon which is delineated the route, diagram or other matter of a directional character. Opposite end portions of the strip 1 are reversely wound to provide rolls 2 and 3 which are normally spaced apart to expose an intermediate portion of the strip for ready reading of the matter thereon. A supporting member is disposed between the rolls 2 and 3 to maintain them in spaced relation. This supporting member may consist of a plate 4 having seats 5 at opposite ends which receive the rolls 2 and 3. Opposite portions of the plate 4 are bent laterally in the same direction and are depressed to form the seats 5. The supporting member is provided with attaching means usually in the shape of a suction cup 6, whereby the device may be supported upon the windshield, instrument board or other convenient part of a motor vehicle or other type of carrier.

An elastic retainer may be provided to hold the rolls 2 and 3 in the seats 5, as well as exert a braking action on said rolls to prevent accidental unwinding of the strip and an annoying looseness of that portion of the strip exposed between the rolls. In the form illustrated in Figs. 1, 2 and 3 the elastic retainer consists of a metal strap 7 having opposite end portions recurved, as indicated at 8, to engage about the rolls 2 and 3 and maintain them in the seats 5. The metal strap 7 is resilient and is movable on the supporting member 4 to adapt itself to the relative diameters of the rolls 2 and 3 as the strip is unwound at one end and wound at the opposite end. This self-adjustment of the elastic re-

tainer results in subjecting the rolls 2 and 3 to a uniform braking action. The strap 7 is longitudinally slotted, as indicated at 9, to receive the fastening by means of which the suction cup 6 is attached to the supporting member 4.

The rolls 2 and 3 are held against movement laterally of the supporting member by end walls 5^a located at each end of the depressions or seats 5.

In the modification shown in Figs. 4 and 5 the supporting member 4 has openings 10 adjacent the offset portions 5 and these openings receive the retainer 7^e which consists of a spring strip having end portions 7^f projecting beyond the elements 5 and recurved to engage about the rolls of the indicating strip. The reversely curved ends 7^f of the strip 7^e also act as stops to prevent displacement of the retainer from the supporting member. This retainer is self-conformable to the rolls of the indicating strip as will be readily comprehended.

In the form shown in Figs. 6, 7 and 8 the elastic retainer 7^a consists of a rubber band which passes around the rolls 2 and 3 and the supporting member 4. This arrangement necessitates the provision of a supplemental support 4^a which is similar in formation to the supporting member 4 and to which the suction cup 6 is directly attached. The member 4^a is formed with side wings or flanges 4^b, the ends of which are indented, as indicated at 4^c, to receive the offset portions 5 of the member 4.

In the modification shown in Fig. 10 the supporting member consists of a block 4^d, preferably of wood. Opposite edges of the block 4^d are grooved to provide seats 5 to receive the rolls 2 and 3, which are retained in place by a rubber band 7^a. A groove 11 is formed in a side of the block 4^d to accommodate a run of the rubber band 7^a. A suction cup 6 is applied to the grooved side of the block 4^d to provide attaching means for the device.

What is claimed is:

1. A strip having directing matter thereon and having opposite end portions reversely rolled, a supporting member disposed between the rolls and holding them in spaced relation with the intermediate portion of the strip taut and exposing the matter thereon for ready reading, and an elastic retainer member engaging the outer portion of the rolls and cooperatively arranged with respect to the supporting member in a manner to prevent displacement of the rolls and simultaneously subjecting them to a braking action to prevent casual unwinding of the strip and a loosening of the intermediate exposed portion thereof.

2. The combination with an indicating strip having opposite end portions reversely rolled about transversely extending axes, a supporting member having spaced seat portions receiving the said rolls and an elastic retainer member holding the rolls in the seats while exerting a braking action thereon, which said retaining member is free to move longitudinally in respect to the supporting member according to the change of the diameters of the rolled ends of the strip.

3. The combination with an indicating strip having opposite end portions reversely rolled each about a transversely extending axis, a spacing member having spaced seat portions receiving the said rolls and a retainer member engaging the outside of the rolls and serving for holding the rolls in the seats, said retainer member and said spacing member being relatively movable in a longitudinally extending direction and one of them being elastic and self-adjusting whereby they can readily conform to the change of diameters of the rolls as the strip is unwound at one end and wound at the opposite end, one of said members serving as a supporting member.

4. The combination with an indicating strip having opposite end portions reversely rolled, a supporting member disposed between the rolls and provided with seats in which the said rolls are received and an elastic retainer consisting of a strap having opposite end portions recurved to engage about the rolls and hold them in the seats and exert a braking action thereon.

5. The combination with an indicating strip having opposite end portions reversely rolled, a supporting member provided with seats for reception of the rolls and an elastic retainer consisting of a strap held to the supporting member and having a limited movement, and having opposite end portions reversely curved to engage about the rolls and exert a braking action thereon and self-conforming to the change of diameters of the rolls.

6. The combination with an indicating strip having opposite end portions reversely rolled, a supporting member having spaced seat portions provided with end walls receiving the said rolls and an elastic retainer holding the rolls in the seats between the end walls and exerting a braking action thereon.

In testimony whereof we have hereunto set our hands this 30th day of November 1931.

ARTHUR E. BLOOMFIELD.
KENNETH G. BLOOMFIELD.