Jan. 30, 1923. 1,443,558

A. E. BLOOMFIELD ET AL.
HOLDER FOR MAPS, CHARTS, OR THE LIKE.
FILED APR. 30, 1920.

2 SHEETS-SHEET 1

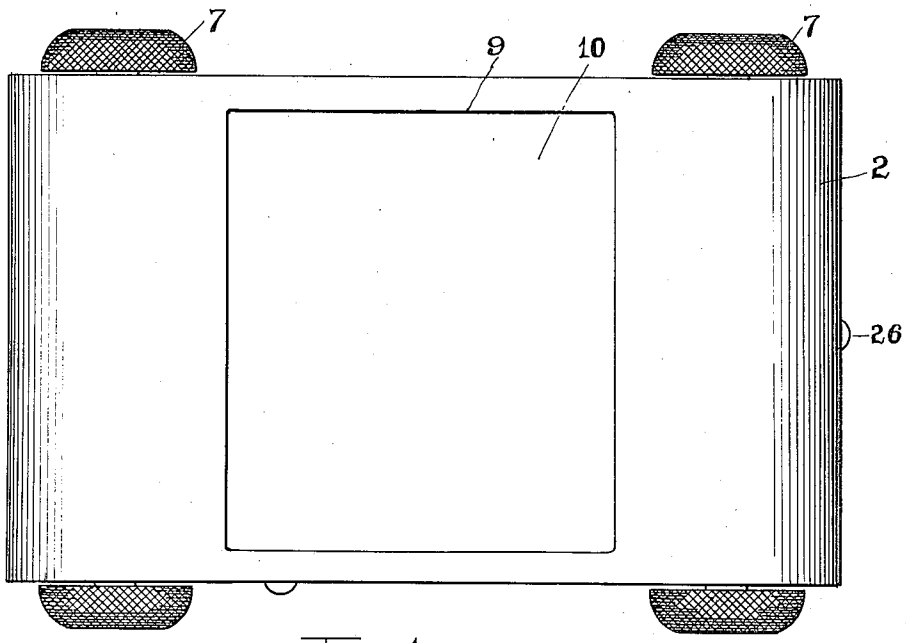


FIG. 1

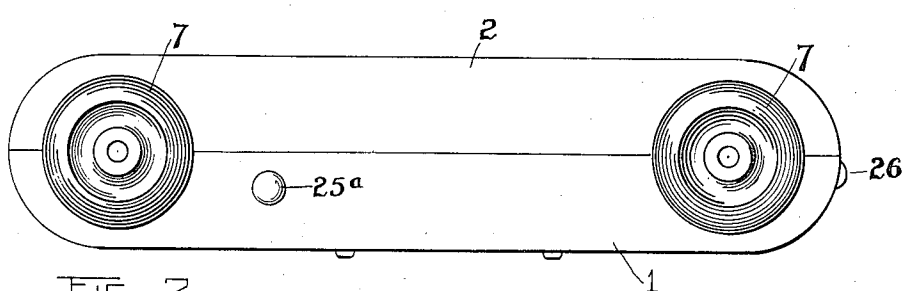


FIG. 2

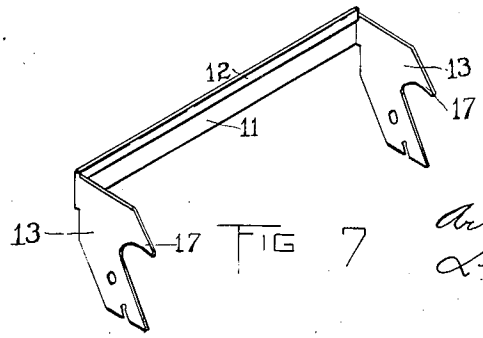


FIG 7

Arthur E. Bloomfield INVENTOR.
Lucius L. French
BY
David Timms
his ATTORNEYS.

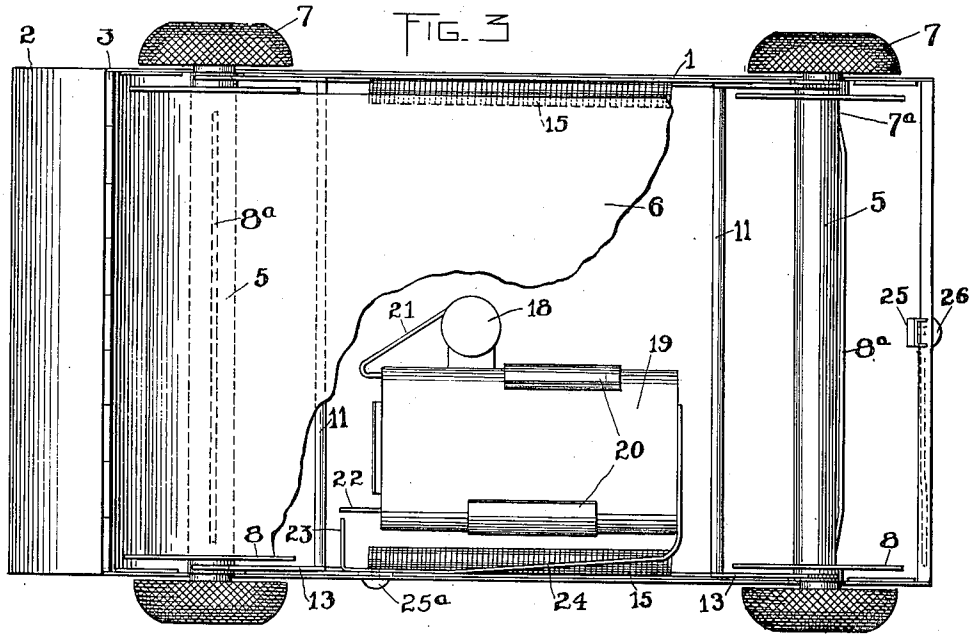
Jan. 30, 1923.

1,443,558

A. E. BLOOMFIELD ET AL.
HOLDER FOR MAPS, CHARTS, OR THE LIKE.
FILED APR. 30, 1920.

2 SHEETS-SHEET 2

FIG. 3



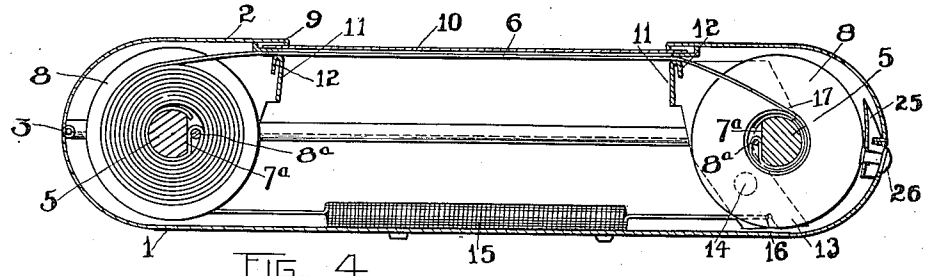


FIG. 4

FIG. 6

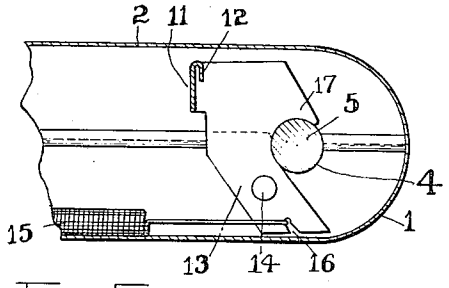
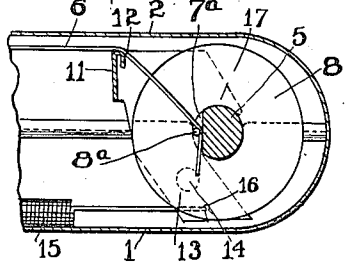


FIG. 5



INVENTOR.
Arthur E. Bloomfield
Lucius L. French
BY
David & Simmons
ATTORNEYS.

Patented Jan. 30, 1923. 1,443,558

UNITED STATES PATENT OFFICE.

ARTHUR E. BLOOMFIELD AND LUCIUS L. FRENCH, OF ROCHESTER, NEW YORK, ASSIGNORS TO WHIT-FIELD MAP COMPANY, INCORPORATED, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

HOLDER FOR MAPS, CHARTS, OR THE LIKE.

Application filed April 30, 1920. Serial No. 377,774.

To all whom it may concern:

Be it known that we, ARTHUR E. BLOOMFIELD and LUCIUS L. FRENCH, citizens of the United States, and residents of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in a Holder for Maps, Charts, or the like, of which the following is a specification.

The present invention relates to a holder for maps, charts, or other strips of sheet material of the type in which the strip is rolled from one spool to another, an object of this invention being to provide yielding guiding means for the strip between the spools for the purpose of preventing the tearing of the strip by undue strain thereon. Another object of the invention is to provide a braking means of novel construction acting on the spools to permit the ready turning of the spools while at the same time preventing undue movement of such spools which would produce slack in the sheet between the spools. Still another object of the invention is to provide a novel means for mounting the spools in the casing in such a manner that the spools may be readily removed from or fitted to the casing.

To these and other ends, the invention consists of certain parts and combinations of parts, all of which will be hereinafter described, the novel features being pointed out in the appended claims.

In the drawings:

Fig. 1 is a top view of the holder;

Fig. 2 shows the holder in side elevation;

Fig. 3 is a view of the casing showing the upper section open;

Fig. 4 is a vertical longitudinal section through the casing;

Fig. 5 is a detail fragmentary sectional view showing the manner in which the guides cooperate with the spools for producing a braking action thereon and at the same time acting to retain the spools to the lower section;

Fig. 6 is a fragmentary view showing the manner in which the sheet is connected to the spools; and

Fig. 7 is a perspective view of the guide.

The illustrated embodiment of the invention comprises a casing or holder formed of two similar sections 1 and 2 hinged together at one end at 3 and secured at their other ends by a latch 25 controlled by a button 26 on the exterior of the casing. Each of these sections has side walls or flanges which abut to form a chamber between the sections. Two opposite side walls of each of the sections have their meeting edges formed with notches 4 which on the two sections, register so as to provide openings to which the shafts 5 of the spool may be received.

The spools project at opposite ends to the outside of the casing where they are provided with knobs or hand wheels 7, while, within the casing, each spool has two flanges 8 arranged within spaced relation to the knobs, the spools having bearing on the lower section of the casing between the knobs and the flanges. A strip or tape on which a map or other matter may be contained, is connected to the two spools preferably by flattening the shaft of each spool at 7^a and securing a bar 8^a at its ends to the flattened portion so that one end of the tape may be passed under the bar 8^a in the manner shown in Fig. 6. The top or upper casing 2 is provided with a view opening 9 covered by a glass or other transparent plate 10 through which a portion of the map between the spools may be viewed. The map or sheet 6 may be translucent or transparent and below the same in the lower section 1, an electric lamp 18 may be arranged which receives its current from a small cell 19 held by spring clips 20, one of the terminals 21 of this cell being connected to the lamp while the other terminal 22 is arranged to be engaged by the end 23 of a spring arm 24 which has a button 25^a projected through the side wall of the casing so that the spring arm may be moved toward the terminal 22. The spring arm is electrically connected with the casing which is also electrically connected with the lamp 18. Through this means the lamp may be illuminated at night.

For the purpose of holding the map in proximity to this view opening, yielding guiding means is employed preferably in the form of two bars 11 formed from sheet metal and having upper edges turned outwardly and downwardly at 12. These guide bars are yieldingly supported by providing them at opposite ends with arms 13 pivoted at 14 to the lower section of the casing and connecting to these arms two helical springs

15, secured at 16 below the pivots 14 so as normally to hold the guide bars 11 upwardly toward the view opening 9.

Means is also provided for retaining the spools in the lower section of the casing and to this end the arms 13 are provided with hooked projections 17 extending outwardly over the shafts of the spools between the flanges 8 and the knobs 7, said projections bearing on said shafts and being curved to conform to the shafts so that in addition to retaining the shafts to the lower section of the casing, they act as brakes to prevent the undue turning of the spools.

The map or strip 6 is turned from one spool to the other and should undue tension be placed on the strip, the guides 11 will yield, thus notifying the user and at the same time preventing the tearing of the strip. The projections 17 are readily movable out of the path of the spools so that the latter may be withdrawn from the casing. In the position of use, these projections act as brakes on the spools to prevent the undue turning of the latter.

What we claim as our invention and desire to secure by Letters Patent is:

1. The combination with a casing provided with a wall having a view opening, two spools rotatably mounted in said casing, and a strip connecting them, of two guide bars arranged in the casing on opposite sides of the view opening to cooperate with the strip between the spools to hold the latter in a single plane between the guides and toward the view opening, said guide bars both being yieldable away from the wall in which the view opening is provided.

2. The combination with a casing provided with a wall having a view opening, two spools rotatably mounted in the casing, and a strip connecting the spools, of two bars engaging the strip between the spools to hold the strip in a single plane toward the view opening, said bars each having arms at opposite ends pivotally mounted within the casing to permit the bars to move toward and from the wall in which the view opening is provided, and spring means acting on said bars to hold the strip toward the view opening.

3. The combination with a casing provided with a view opening, two spools arranged in the casing, and a strip connecting said spools, of two guiding bars cooperating with the strip at opposite sides of the view opening to hold the strip in a single plane in front of the view opening, arms arranged at opposite ends of the guiding bars pivotally mounted and arranged to cooperate with the spools to produce braking action thereon, and spring means acting on said guiding bars to hold the arms in braking relation with both spools.

4. The combination with a casing provided with a wall having a view opening, two spools mounted in the casing, and a strip connecting the spools, of two guiding members cooperating with the strip on opposite sides of the view opening to hold the strip in a single plane in front of the view opening, said guiding members having portions cooperating with the spools to produce a braking action thereon, and yielding means acting on said guide members to hold them toward the wall provided with the view opening and in braking relation to the spools.

5. The combination with a casing provided with a wall having a view opening, two spools mounted in the casing, and a strip connecting the spools, of guiding bars cooperating with the strip between the spools to hold them in a single plane in front of the view opening, arms at opposite ends of the guide bars cooperating with the spools to produce a braking action on the latter, and yielding means acting on said guide bars to hold the latter toward the wall provided with a view opening and the arms in braking relation with the spools.

6. A holder for maps or the like comprising a casing section having side walls provided with notches, two spools arranged in said notches, a strip connecting said spools, guiding bars cooperating with the strip between the spools to hold the portion of the strip between the bars in a single plane, pivoted arms by which said guiding bars are carried having portions arranged to cooperate with the spools to retain them in the notches, and spring means acting on said arms.

ARTHUR E. BLOOMFIELD.
LUCIUS L. FRENCH.