

No. 733,137.

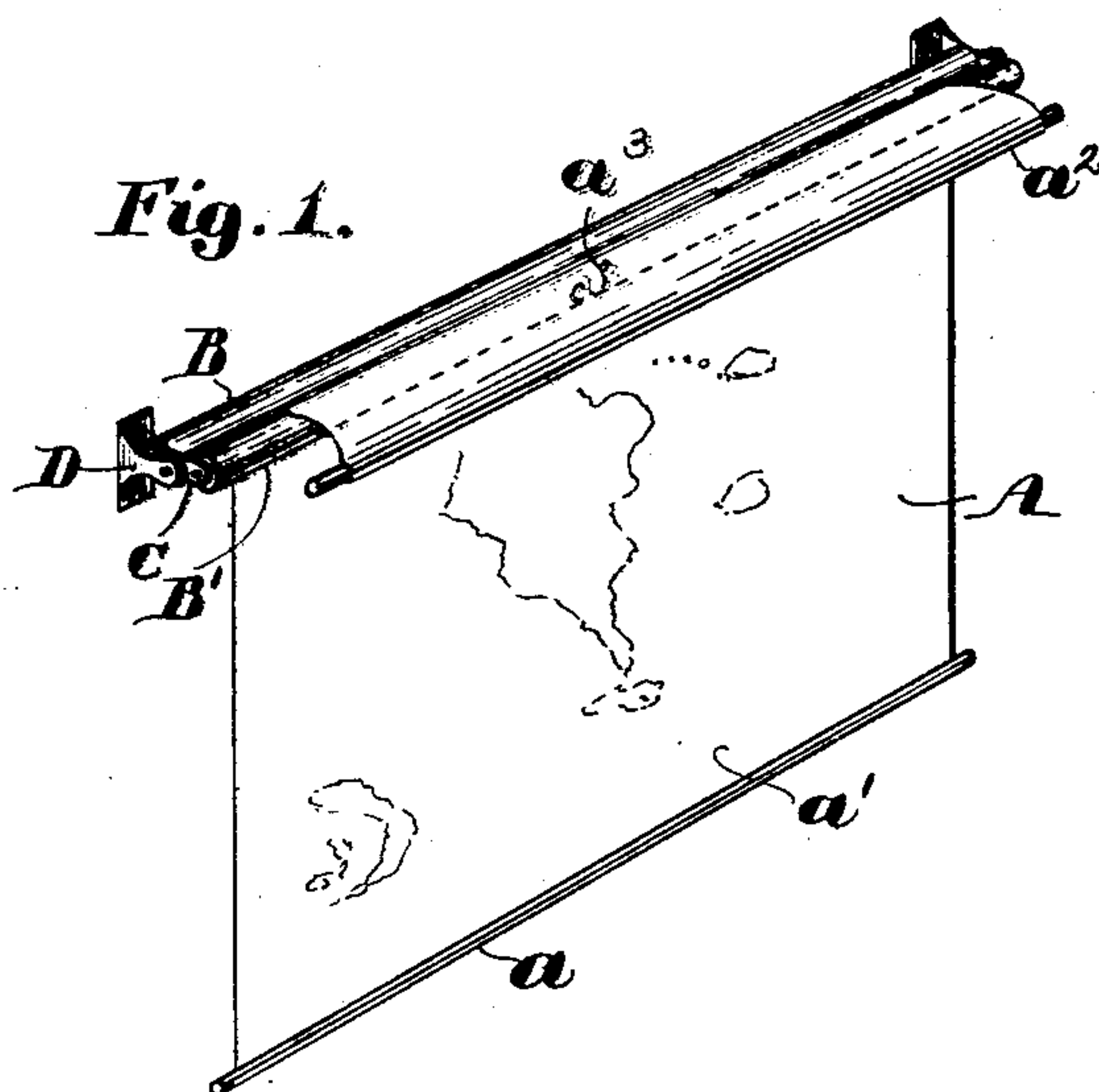
PATENTED JULY 7, 1903.

P. R. BULLARD.

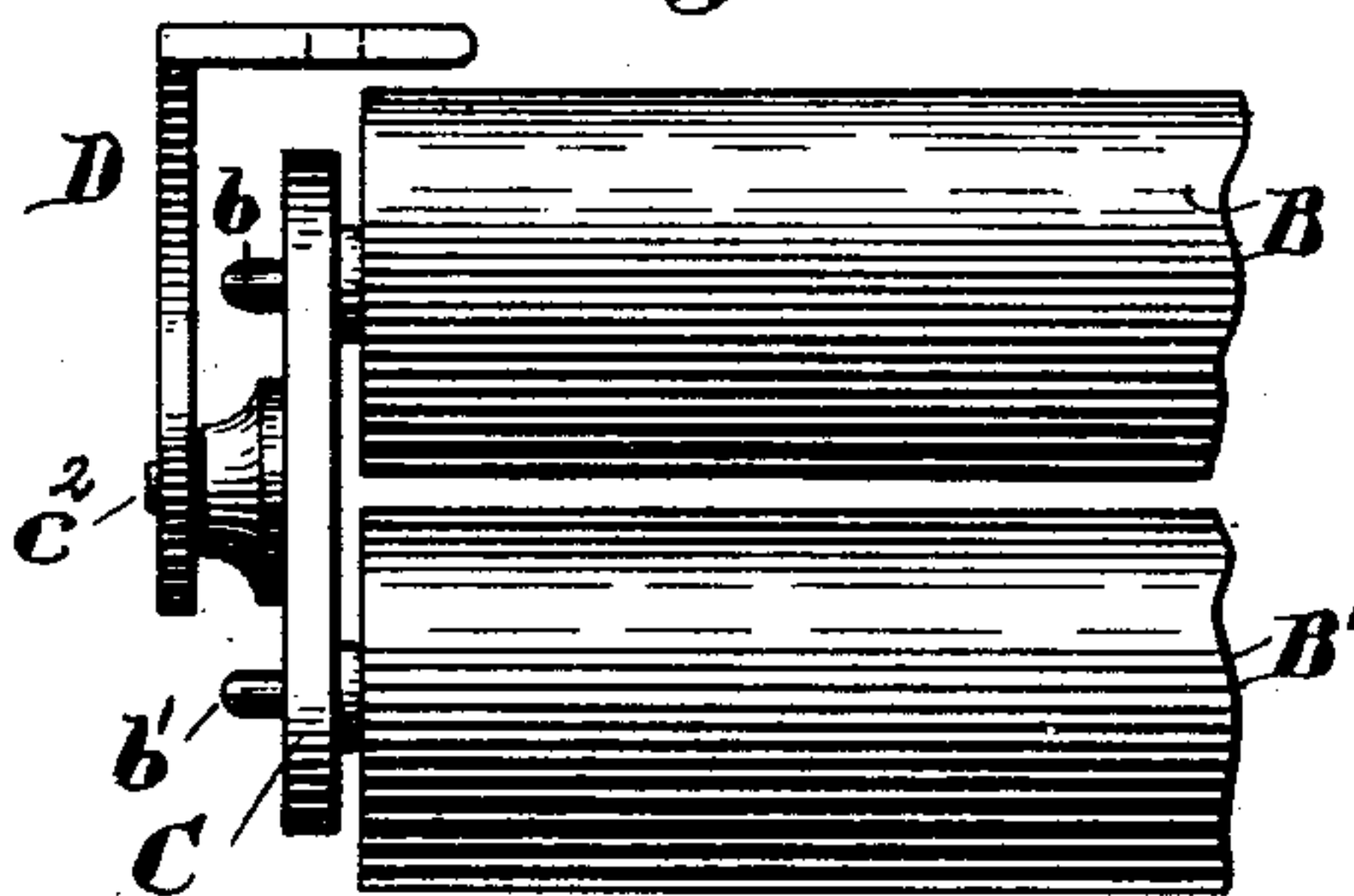
DEVICE FOR CARRYING AND SUPPORTING MAPS, &c.

APPLICATION FILED SEPT. 22, 1902.

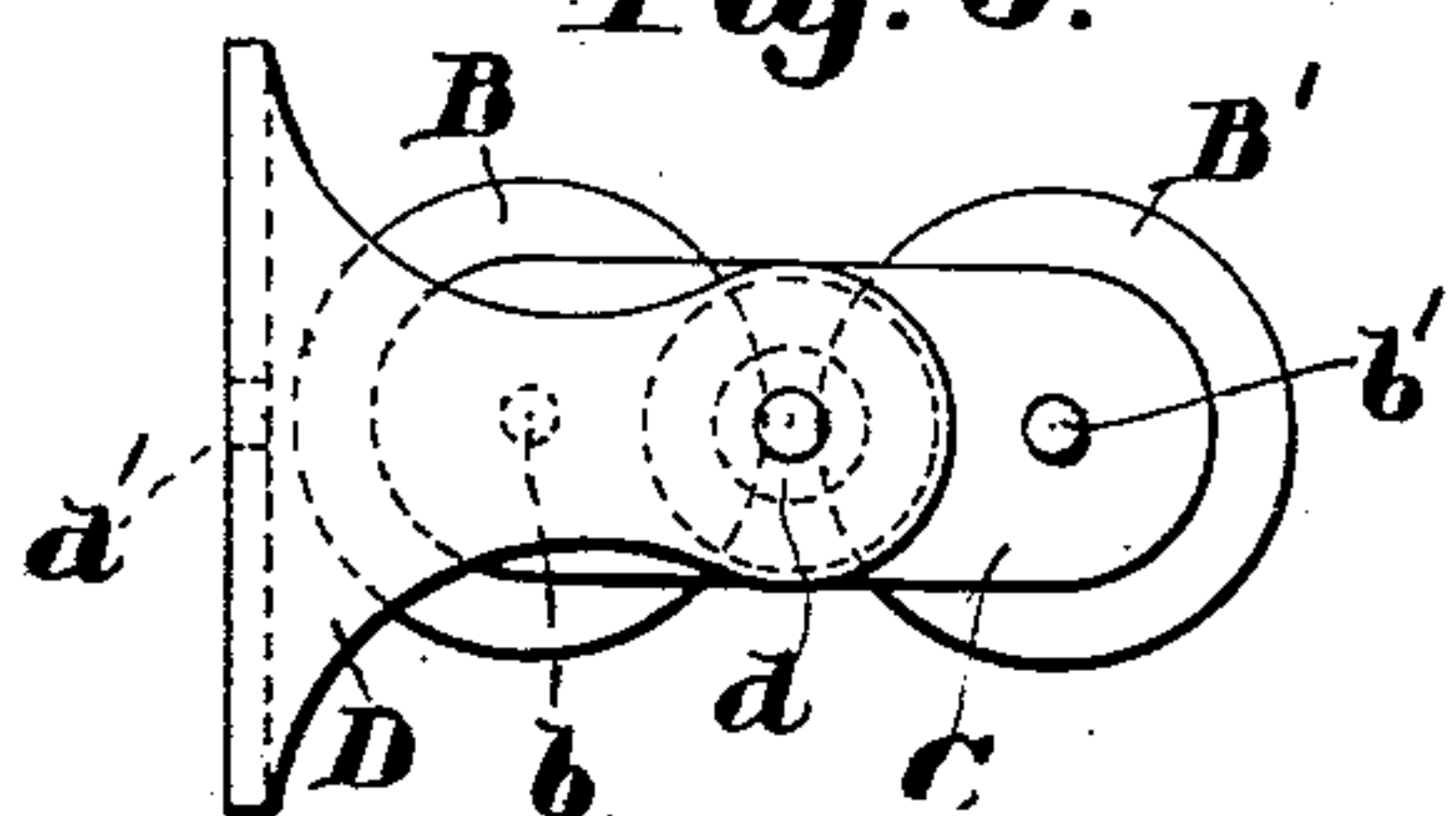
NO MODEL.



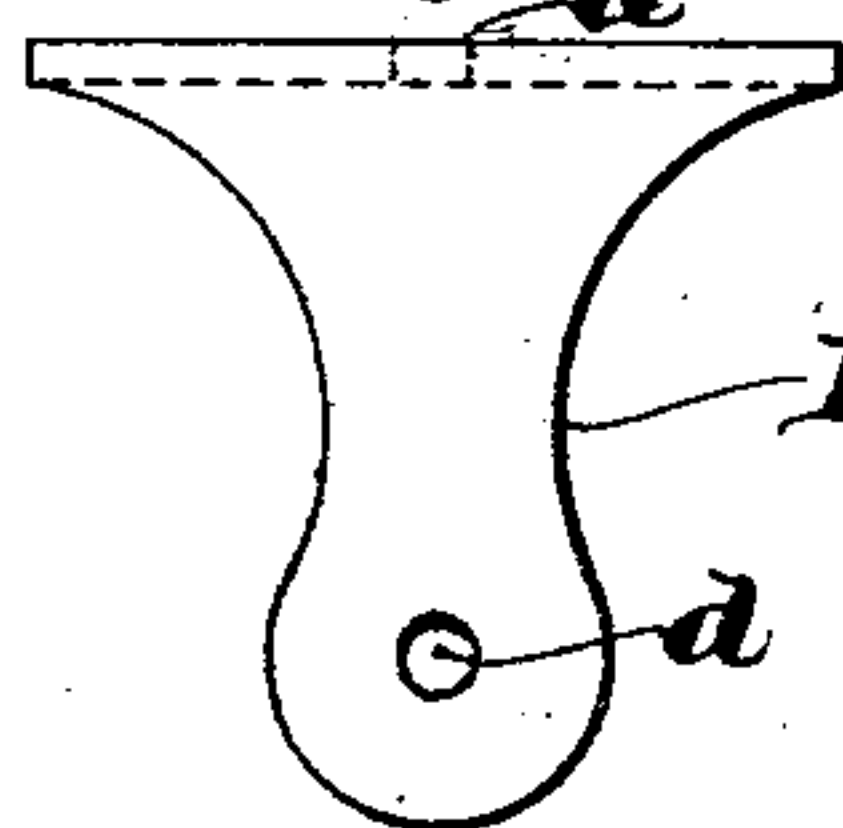
*Fig. 2.*



*Fig. 3.*



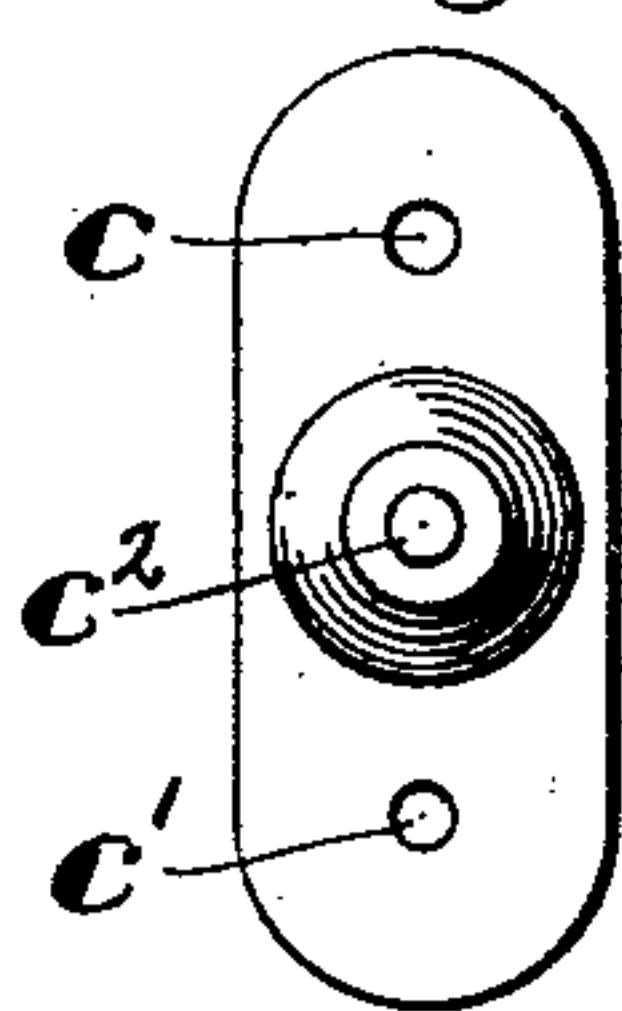
*Fig. 4.*



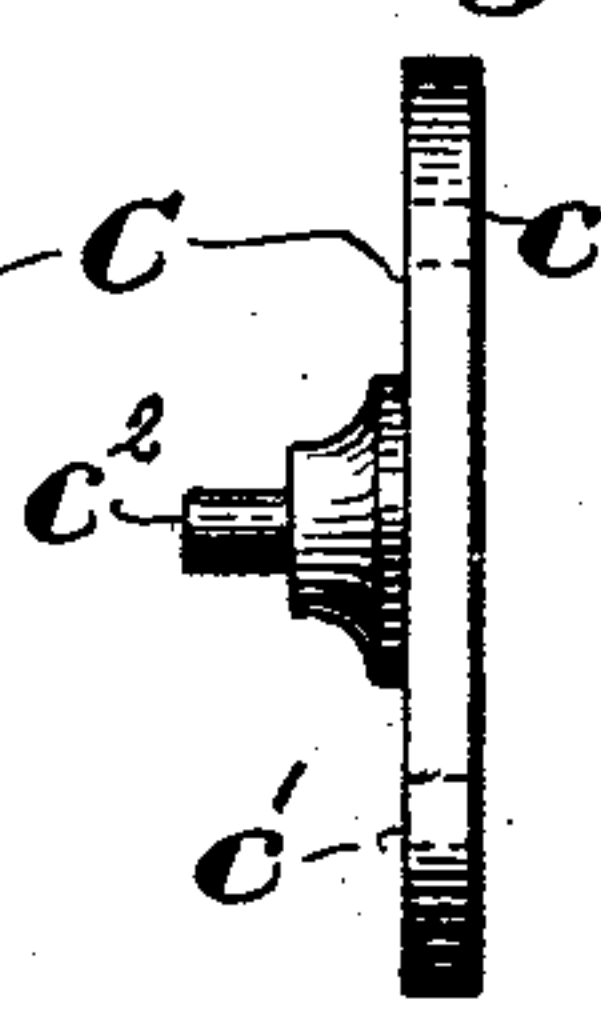
*Fig. 5.*



*Fig. 6.*



*Fig. 7.*



**Witnesses:**

*Walter C. Lombard*  
*Wm. Ropes.*

**Inventor:**

*Paul R. Bullard*  
*by Frank H. Rabber*  
*Atty.*



# UNITED STATES PATENT OFFICE.

PAUL R. BULLARD, OF WALTHAM, MASSACHUSETTS, ASSIGNOR TO  
WALTER C. SCARBOROUGH, OF NEWTON, MASSACHUSETTS.

## DEVICE FOR CARRYING AND SUPPORTING MAPS, &c.

SPECIFICATION forming part of Letters Patent No. 733,137, dated July 7, 1903.

Application filed September 22, 1902. Serial No. 124,380. (No model.)

*To all whom it may concern:*

Be it known that I, PAUL R. BULLARD, of the city of Waltham, county of Middlesex, and State of Massachusetts, have invented a certain new and novel Device for the Carrying and Supporting of Maps, Curtains, or other Flexible Sheets; and I hereby declare that the following is a clear, full, and exact description of the same.

10 This invention relates more particularly to means for the carrying and supporting of maps, curtains, pictures, and other flexible sheets in such a manner as to render them easily accessible and at the same time to keep  
15 them in an extended form, so that they will not become rumpled, creased, or broken, and at the same time to permit of their being rolled upon themselves, so as to preserve them from the action of light and dust and also  
20 for the purpose of occupying less space.

This device is designed to be suspended from or attached to a wall or laid flat or attached to a desk, table, or other appropriate surface, so that the articles carried by it may  
25 be unrolled therefrom in either a pendent or horizontal manner.

The purposes of this device are as follows: first, to show by mechanical means either and both sides of such maps, pictures, and other  
30 flexible sheet as shall be printed, painted, sketched, or drawn on each and both sides of said flexible sheet while suspended on a wall or other perpendicular support; second, to preclude the necessity of turning or twisting  
35 a map or other flexible sheet from one side to the other for the purpose of seeing the reverse side; third, to enable said maps or other flexible sheet to be changed frequently with little effort and by mechanical means in order to  
40 expose either side thereof to view without the liability of rumpling, cracking, or unduly creasing or defacing the surfaces of said flexible sheet.

This device consists of two parallel rollers  
45 of equal or different size axially supported at both ends of both rollers, so as to be equally distant from each other throughout their whole length, said axial support to be in turn revolubly supported at or near its center  
50 of gravity, so that both of the parallel rollers are free to revolve upon their own axis and

also to be revolved one over the other in a planetary manner, all as hereinafter described, and pointed out by the claims, reference being had to the annexed drawings, forming part of this specification, and in which like symbols represent corresponding parts, and wherein—

Figure 1 is a perspective view showing a map or other flexible sheet pendently suspended from a vertical surface. Fig. 2 is a horizontal view of one end of each of two parallel rollers axially entered into a revoluble plate having a trunnion on the side opposite to the rollers and at or near its center  
60 of gravity. Fig. 3 is an end view of the two parallel rollers and the revoluble carrier sustaining them. Fig. 4 is a side and Fig. 5 is a front view of a supporting-bracket into which the revoluble carrier is rotatively entered. Fig. 6 is a plan view, and Fig. 7 is a side view, of the revoluble carrier.

A is a map, curtain, or other flexible sheet.

B and B' are two cylindrical rollers provided with trunnion-shaped axles *b* and *b'* on  
75 the outer ends thereof.

C is an oblong or elliptical carrier provided with two holes *c* and *c'* of proper size to easily admit the trunnions *b* and *b'* on the ends of the rollers B and B' and at such a distance  
80 from each other as to allow of the introduction of a map or other flexible sheet between the periphery of the two rollers when they are axially entered into the revoluble carrier C.

D is a support or bracket provided with a hole *d* in the outward or upward projecting part thereof of sufficient size to easily admit the trunnion *c'*, which is integral with or fixedly fastened into a revoluble carrier C and  
90 on the opposite side from which the rollers B and B' are entered into said carrier. The opposite end of this support or bracket D is formed into a foot and provided with hole *d*, by which it may be readily attached to any  
95 perpendicular or horizontal surface with ordinary bolts or screws.

The operation of this device is as follows, reference being had to Fig. 1: On exerting traction upon one end *a* of the map A it is  
100 evident this end of the map will pass down between the horizontal rollers B and B', and



the surface  $a'$  will be the outward surface and exposed to view, while by exerting traction on the opposite end  $a^2$  of the map A this end of the map will pass down over one of the rollers, as B', and the surface  $a^3$  will be the outside surface and exposed to view. If now the two rollers B and B' be caused to rotate planetary fashion about each other around the axis on the carrier C, it will cause the map A to be wrapped around both of the rollers B and B' until it is entirely rolled up about them and itself.

It is obvious that the map A is provided with sticks or other means of enlargement at its extreme top and bottom edges to prevent the map from passing entirely between and out of contact with the rollers B and B'.

Having fully described and explained the merits of this device, what I desire to claim and secure by Letters Patent is as follows:

1. In a device for the carrying and sup-

porting of maps, curtains, &c., a plurality of supports, a plurality of revoluble carriers journaled in said supports, a plurality of rollers journaled in said carriers, a flexible sheet supported between said rollers and adapted to be sustained at any part of its length by the pressure of said rollers upon the sheet, substantially as specified.

2. In a device for the carrying and supporting of maps, curtains, &c., a plurality of revoluble carriers, a plurality of rollers journaled in said carriers, a flexible sheet supported between said rollers, having each end of said sheet free from said rollers and adapted to be drawn away from said rollers, substantially as specified.

PAUL R. BULLARD.

Witnesses:

WM. O. WEBBER,  
HELEN A. MOYLAN.