

(No Model.)

H. R. FRY.
MAP CASE.

No. 273,059.

Patented Feb. 27, 1883.

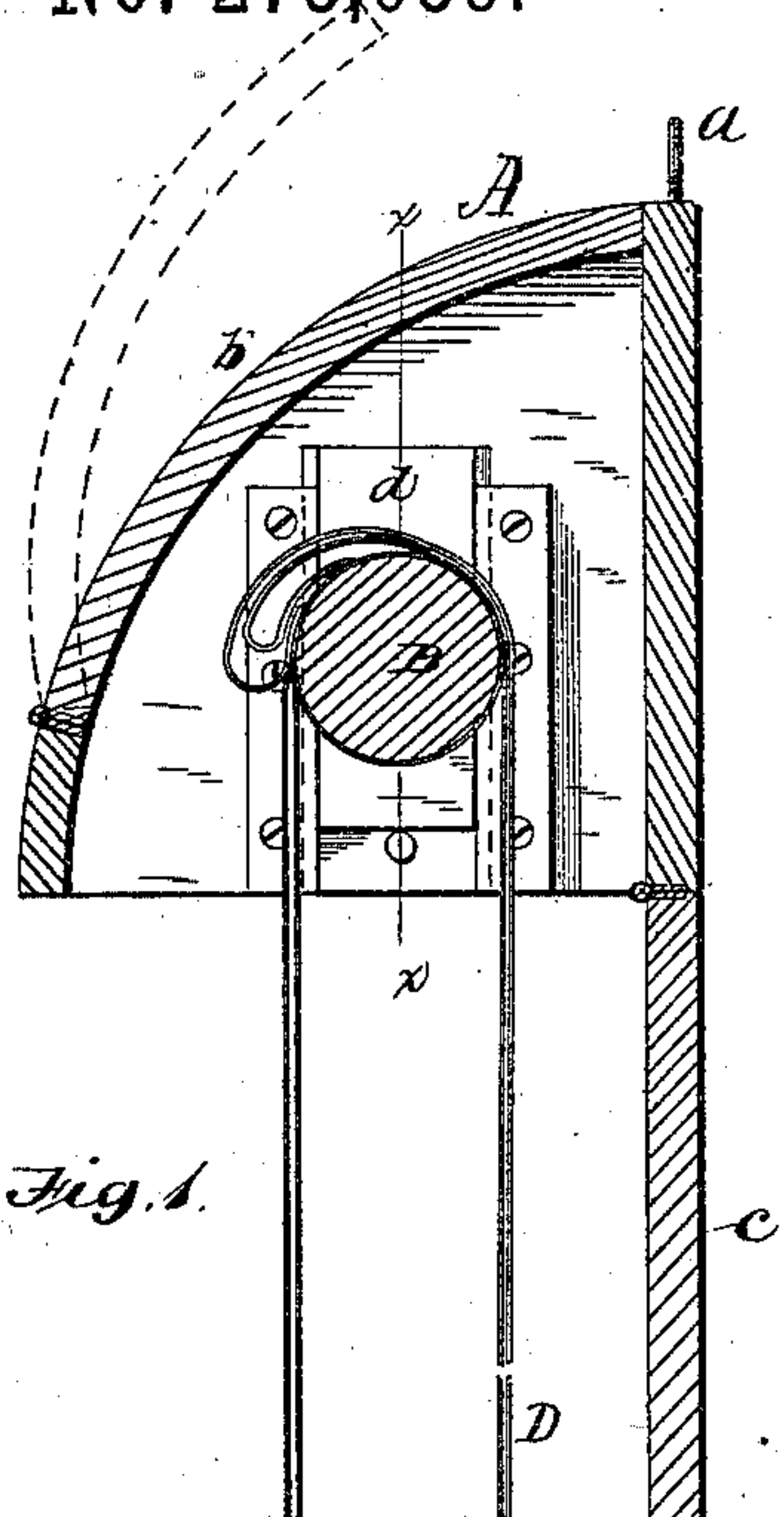


Fig. 1.

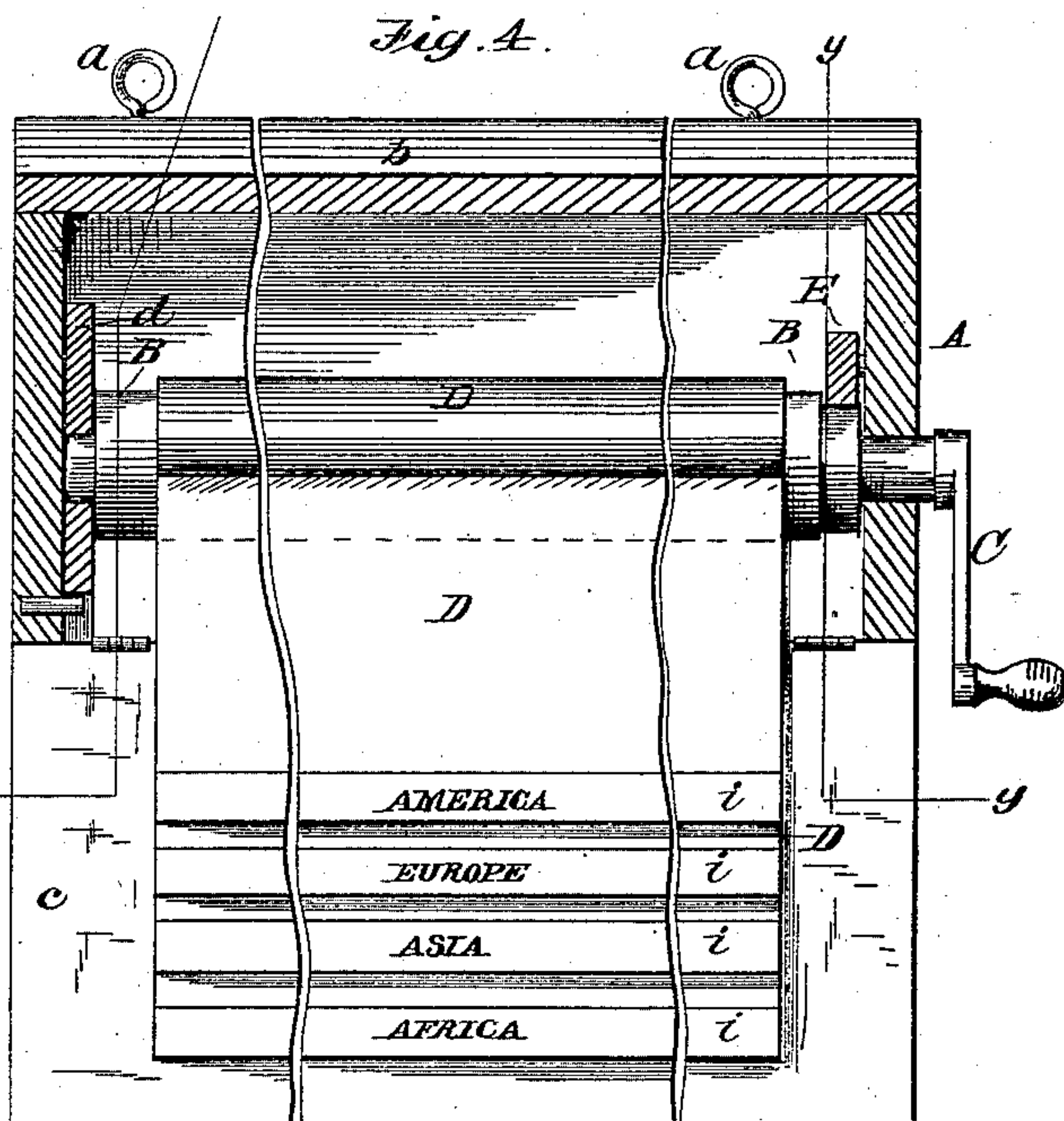


Fig. 4.

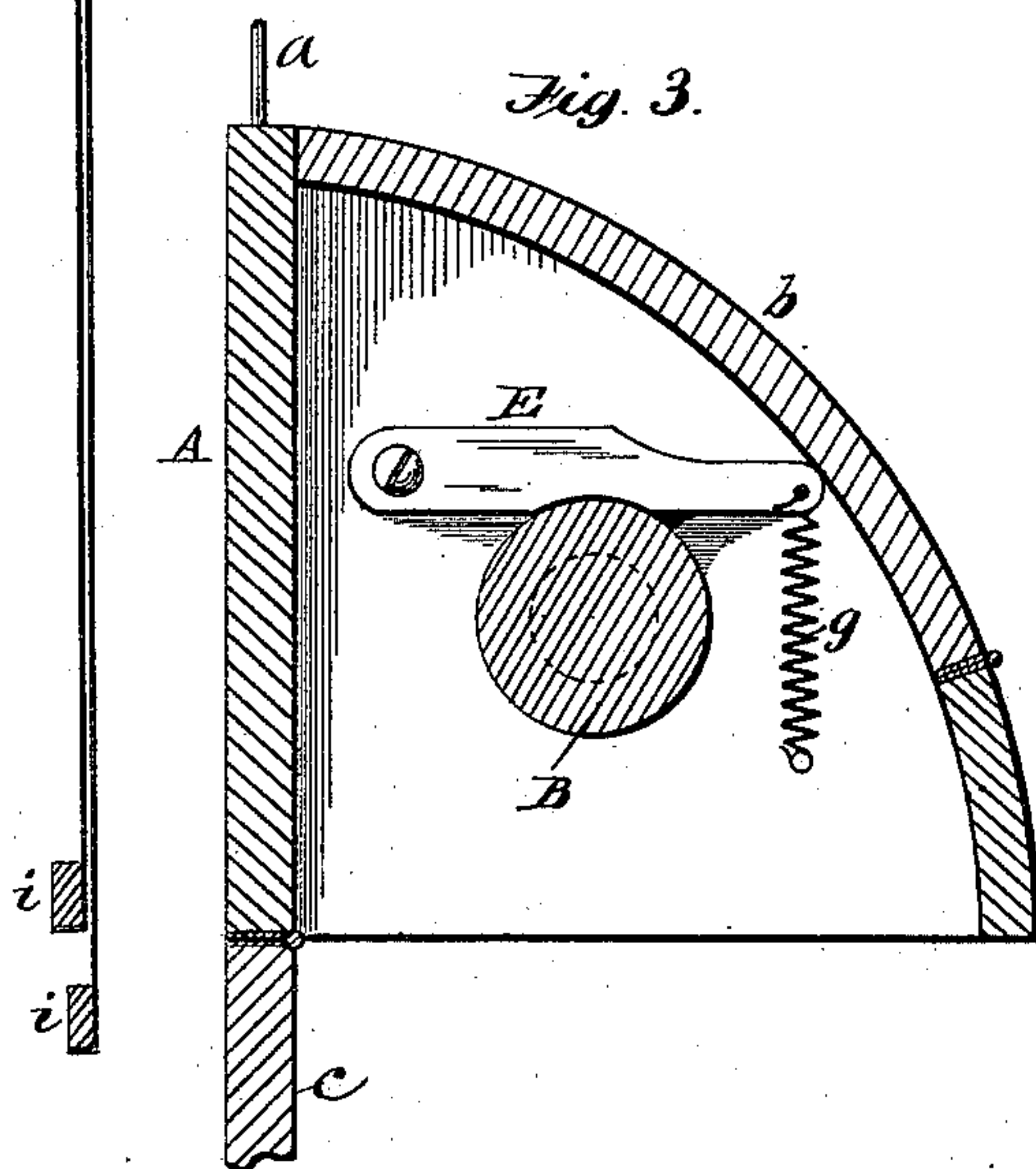


Fig. 3.

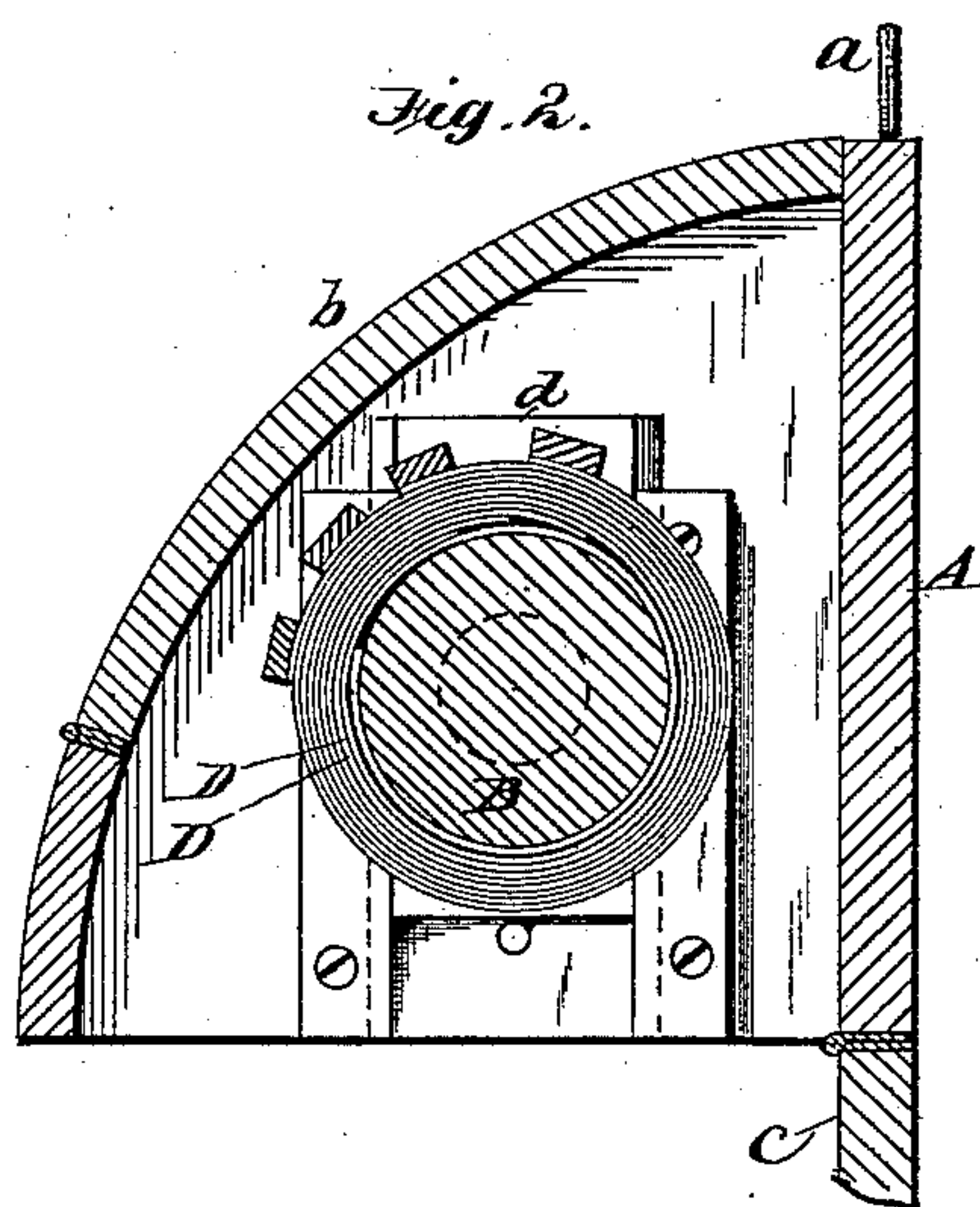


Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY R. FRY, OF GRANT COUNTY, INDIANA.

MAP-CASE.

SPECIFICATION forming part of Letters Patent No. 273,059, dated February 27, 1883.

Application filed August 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY R. FRY, of the county of Grant and State of Indiana, have invented certain Improvements in Map-Cases, of which the following is a specification.

The object of this invention is to produce an apparatus whereby a series of maps may be inclosed and protected in a compact form and either one in the series extended and exposed to view at will. It is the special aim of the apparatus to avoid the occupation of floor-space and to admit of the maps being suspended vertically against a wall or over the surface of a stationary blackboard. The apparatus consists of a case or support, an internal roll having a series of maps suspended therefrom, a crank or manual operating device, and a detent or brake; and the invention consists in the peculiar features and combinations herein-after specified.

Referring to the accompanying drawings, Figure 1 represents a vertical section through my apparatus, with one of the maps extended in position for use. Fig. 2 is a section of the same, illustrating the manner in which the maps are brought successively into an exposed position. Fig. 3 is a vertical cross-section on the line *y y*, Fig. 4, showing the brake or friction device by which the rotation of the roll is controlled. Fig. 4 is a view showing the case in vertical section on the line *x x*, Fig. 1, and the roll and maps thereon in elevation.

Referring to the drawings, A represents a case or cabinet, which may be of any suitable form, with one flat side provided with eyes *a* or equivalent means, whereby it may be suspended firmly in position against the wall. The case is in the present instance made in a quadrantal form and provided with two doors or lids, *b* and *c*, hinged to the top and bottom, respectively, and extending the entire length of the case for the purpose of giving access to the interior of the same.

B represents a horizontal roll, extended lengthwise within the case from end to end thereof, the roll having a journal at one end seated in a removable slide, *d*, while at its opposite end it has a journal extended through the end of the case to the outside, and there provided with a hand-crank, C, by means of which the roll may be revolved at will. The slide *d* is seated removably in guides or sup-

ports on the inside of the case, and is removable vertically with the end of the roll in order to permit the latter to be removed endwise from the case for the removal of the crank from its opposite end.

D D represent a series of flat flexible sheets having maps upon their surfaces. These sheets are placed one against another, and are all secured at their opposite ends firmly to the roll B in any suitable manner, the mode of attachment being preferably such that they may be disconnected at will. The sheets are made of such length or so disposed with relation to each other that when unwound from the roll and permitted to hang downward the edge of each sheet will extend below the edge of the sheet next in front. To the ends of the maps, all of which are thus exposed to view at one time, I apply names, numbers, or their equivalents, to designate the particular maps upon the concealed faces. To the lower end of each sheet I usually apply a transverse bar or strip of wood, *i*, which serves the twofold purpose of holding the sheet in an extended position and of serving as a weight to facilitate the separation and manipulation of the edges of the sheets as they are passed over the top of the roll.

E represents a friction brake or detent, located within the case and acting upon one end of the roll to limit its rotation and hold it in any position in which it may be placed. This brake may be of any suitable character, the arrangement represented in the drawings consisting of an arm or lever pivoted at one end in the case and bearing at its middle upon the roll, and connected at its opposite end to a spiral spring, *g*, which is attached to a fixed stud.

Under the above construction the turning of the crank will serve to wind the entire series of maps upon the roll, one over another, and afterward to cause the ends of the maps to pass in succession over the roll in the manner indicated in Fig. 2, the name or designation upon each map being exposed to view as it passes. The operator, desiring to present a particular map—for example, that of Asia—revolves the roll until the end of that map is presented on the front of the roll, whereupon he grasps the ends of those maps which may be exposed above it and pushes them backward

over the top of the roll, permitting them to fall on the rear side. He then turns the roll backward, the effect of which is to lower the map of Asia below the case and expose its entire surface to view. By repeating this operation either map in the series may be exposed at will. When the map is no longer required the roll is again turned and the entire series of maps wound upon the same within the case, where they will be caused to remain by the action of the brake holding the roll in position. After being thus wound, the closing of the cabinet will serve to protect the maps from dust and insects.

If desired, maps may be applied on both surfaces of each sheet, in which case, however, the two ends of the roll will be made alike in form, so that the roll may be removed and turned end for end within the case to expose either surface on the front at will.

It will of course be understood that the form of the cabinet, the form of the brake or detent, and the construction of the bearings which permit the roll to be removed may be modified at will.

If preferred, the slide *d* may be omitted and the end of the roll merely dropped into a fixed bearing which is open on the upper end.

I am aware that in devices for exhibiting wall-paper portable stands or frames designed to rest upon the floor have been provided with large cylinders having a series of small sheets attached thereto in different positions, the parts being constructed in such manner that several sheets were exposed at one time upon an inclined table or support provided for the purpose. This I do not claim.

I am aware that a roll has been provided with a series of maps, and combined with a second roll or pressure device, arranged to act above the main roll upon the maps for the purpose of holding them in position when wound upon the roll, and of releasing their ends successively. My arrangement differs

from that above cited in the important feature that the ends of the maps are weighted and left entirely free, the usual upper roll or pressure device being dispensed with, thus leaving the ends of the maps free to pass in both directions. In this manner I am enabled to simplify the construction, reduce the cost, and secure the instantaneous exposure of any particular map required, while leaving the maps free to hang in a vertical direction.

The present invention is restricted to those matters and things which are hereinafter claimed; and as to all matters which may be described or shown, but which are not claimed, the right is reserved to make the same the subject of a separate patent.

Having thus described by invention, what I claim is—

1. As a new article of manufacture, a suspension device for exhibiting maps in series, consisting of an external case provided with a door in its bottom, a roll mounted in said case, a hand-crank for rotating said roll, and a series of maps all suspended at one end from said roll with their lower ends terminating at different heights.

2. In a map-exhibitor, the combination of the case *A*, having two doors, *b* and *c*, the horizontal roll, the friction-brake, the crank, and the series of maps suspended from the roll with their lower ends at different heights.

3. In a map-exhibitor, a suspension-case provided with an internal roll having a series of maps wound thereon, in combination with means, substantially as described, for closing the bottom of said case and permitting the same to be opened to allow the descent of the maps.

HENRY R. FRY.

Witnesses:

J. M. TUDOR,
D. W. CORER.