(No Model.)

C. B. TAYLOR.

BOOK SHELF.

No. 332,627. Patented Dec. 15, 1885.

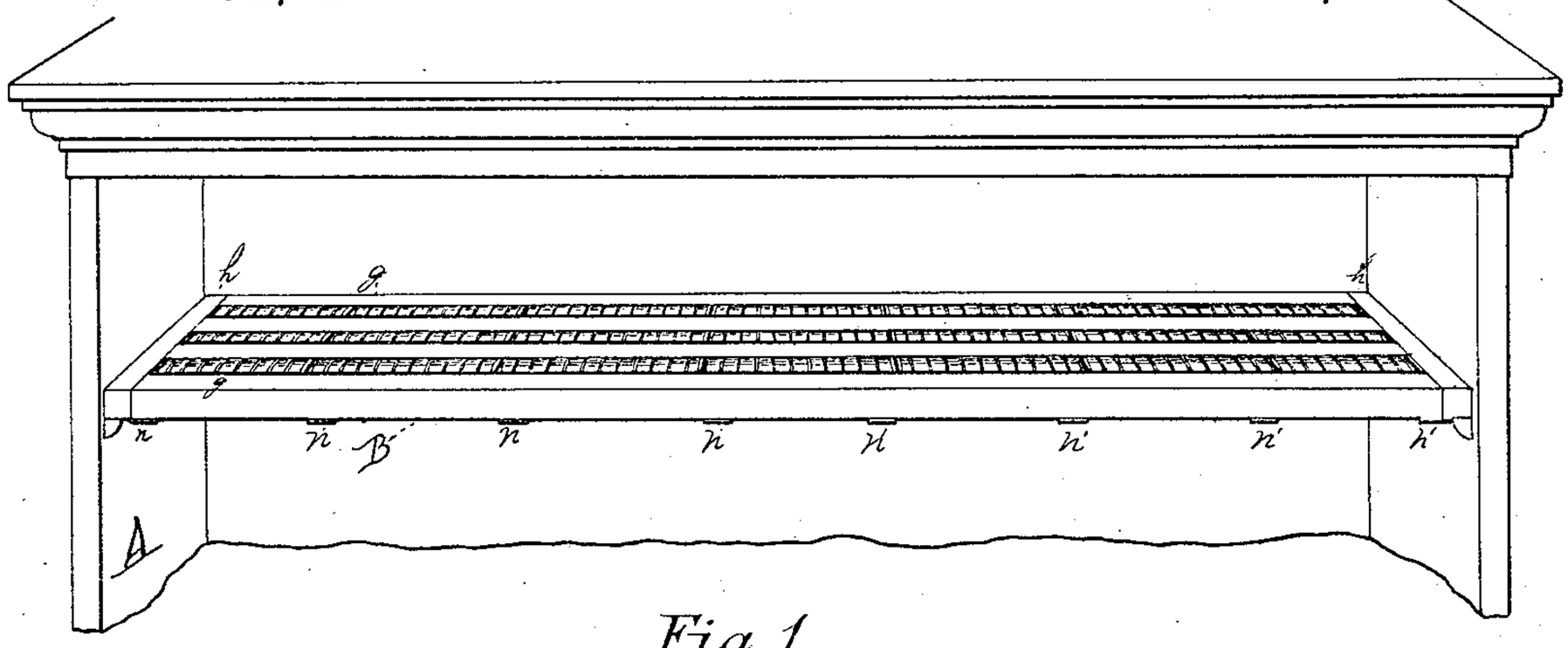

Fig. 1.

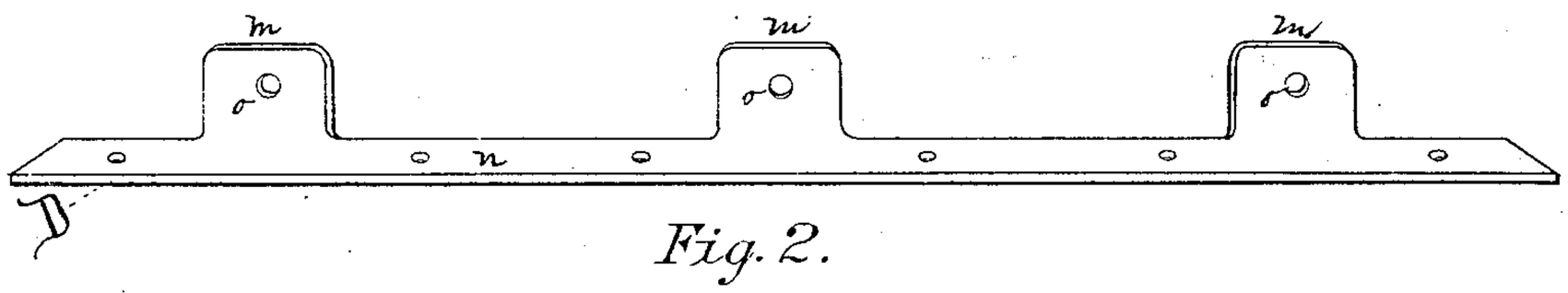

Fig. 2.

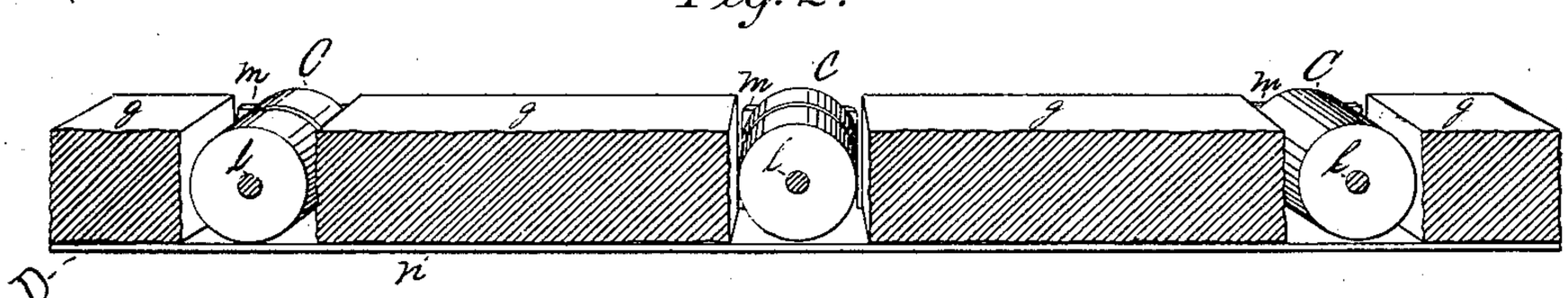

Fig. 3.

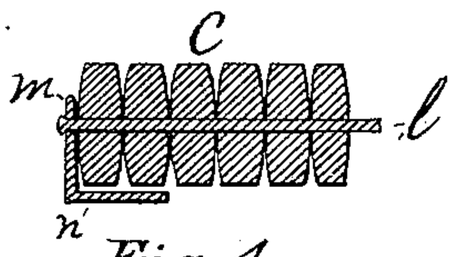

Fig. 4.

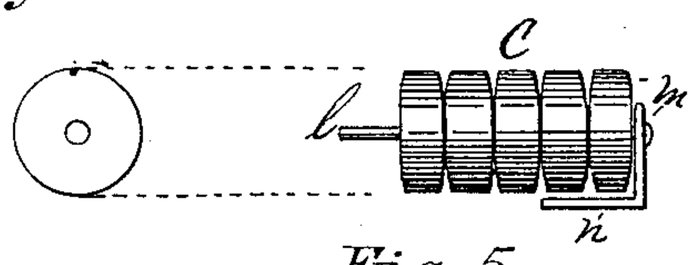

Fig 5.

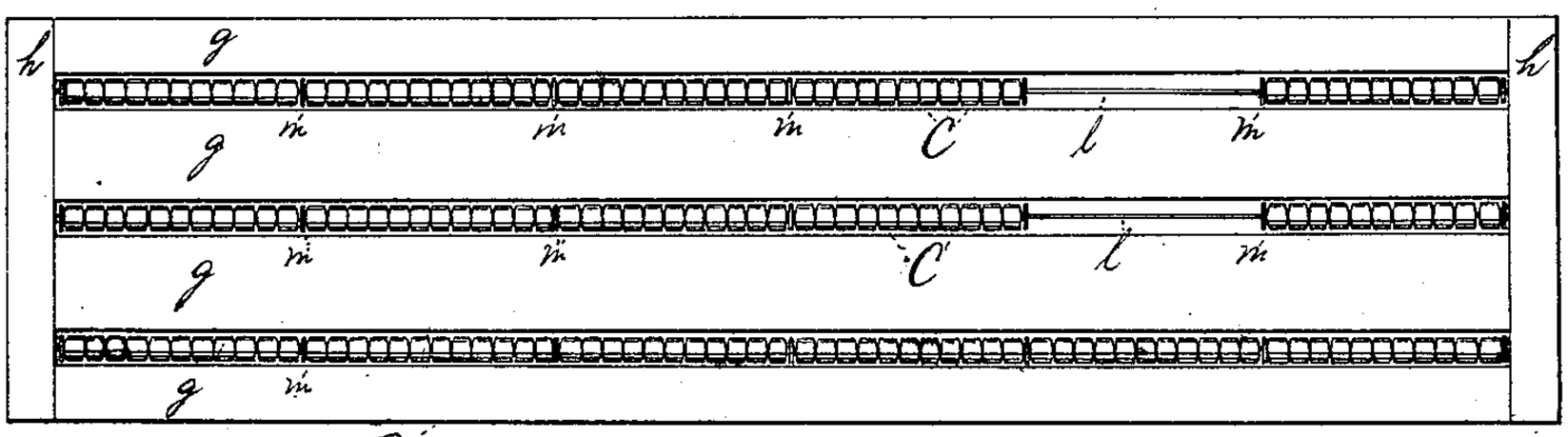

Fig. 6.

WITNESSES

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UNITED STATES PATENT OFFICE

CHARLES B. TAYLOR, OF DENVER, COLORADO.

BOOK-SHELF.

SPECIFICATION forming part of Letters Patent No. 332,627, dated December 15, 1885.

Application filed June 10, 1885. Serial No. 168,206. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. TAYLOR, a citizen of the United States, residing at Denver, in the county of Arapahoe and State of Colorado, have invented a new and useful Improvement in Book-Shelves, of which the following is a specification.

The object of my invention is to provide a book-shelf on which books may be placed, and from which books may be withdrawn without materially injuring the edges of their covers by the friction on the shelf. The invention is peculiarly adapted for large and heavy books.

The invention is illustrated by the accompanying drawings, in which similar letters refer to similar parts throughout.

Figure 1 is a perspective view of the invention in position. Fig. 6 is a view of the invention seen from above. Fig. 3 is a vertical cross-section of the same. Fig. 2 is a view of the support for the shaft on which the rollers are set and turn. Fig. 5 is a view of five rollers set on the shaft, showing a part of the shaft and its support; and Fig. 4 is a vertical section of the same.

A is a part of the main book-case. B is the shelf, composed of several strips of board, *g g g g*, fastened together by the end pieces, *h h*, leaving openings between the strips, as shown. In these openings are set and work series of short rollers, C, set on and working freely around a main shaft or axle, *l*. These rollers are so set that they project above the upper surface of the strips sufficiently to hold the books above the strips and prevent the books which are moved over the rollers or set on them from touching the strips. The shaft *l* extends from end to end of the shelf, and is held in place by the supports D. The supports D are made of thin pieces of sheet metal, shaped as shown in Fig. 2, with part *m* bent at right angles to the part *n*. Holes are made in *m* for the shaft to pass through. The part *n* is fastened by screws or tacks to the under side of the strips *g g g g*, and the parts *m* project into the openings between the strips and support the shaft *l*, which passes through the holes *o*. The rollers C are short cylindrical pieces of wood or other suitable material, with the ends turned slightly convex to prevent friction on each other, and are set side by side on the shaft *l*, nearly filling the spaces between the strips *g*. They project slightly above the strips. When books are rolled over or set upon them, they support the books, so that the books cannot rub against the strips, and friction on the book-covers is thus prevented. The advantage of using short rollers instead of one long roller between the supports is, that any book, be it thick or thin, placed on the shelf will run on and be supported by its own separate rollers, and the free movement of the rollers cannot be interfered with by other books on the same shelf.

The shelf may be placed on the bottom floor of safes and similar places where books and other articles are liable to be shifted.

I am aware that rollers have been used for supporting books in book-shelves prior to my invention, as shown in patents granted to Baggs, No. 133,005, November 12, 1872; Boone, No. 182,157, September 12, 1876, and Conant, No. 316,241, April 21, 1885, and I therefore do not claim the use of rollers, broadly; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

A book-shelf constructed of longitudinal strips fastened at their ends by the end pieces, with openings between said strips extending from end piece to end piece, in which openings are set short rollers on shafts extending from end piece to end piece of the shelf, the rollers projecting above the strips, and the shafts supported on sheet-metal pieces fastened to the under side of the strips, and forming bearings for the shafts, and projecting up into the spaces between the strips, substantially as described, and for the purposes set forth.

CHARLES B. TAYLOR.

Witnesses:
WM. J. ACHESON,
JOHN F. DE PEW.