No. 776,195. PATENTED NOV. 29, 1904.

A. W. McCLURE.

SLIDING DOOR HANGER.

APPLICATION FILED MAY 25, 1904.

NO MODEL.

FIG. I

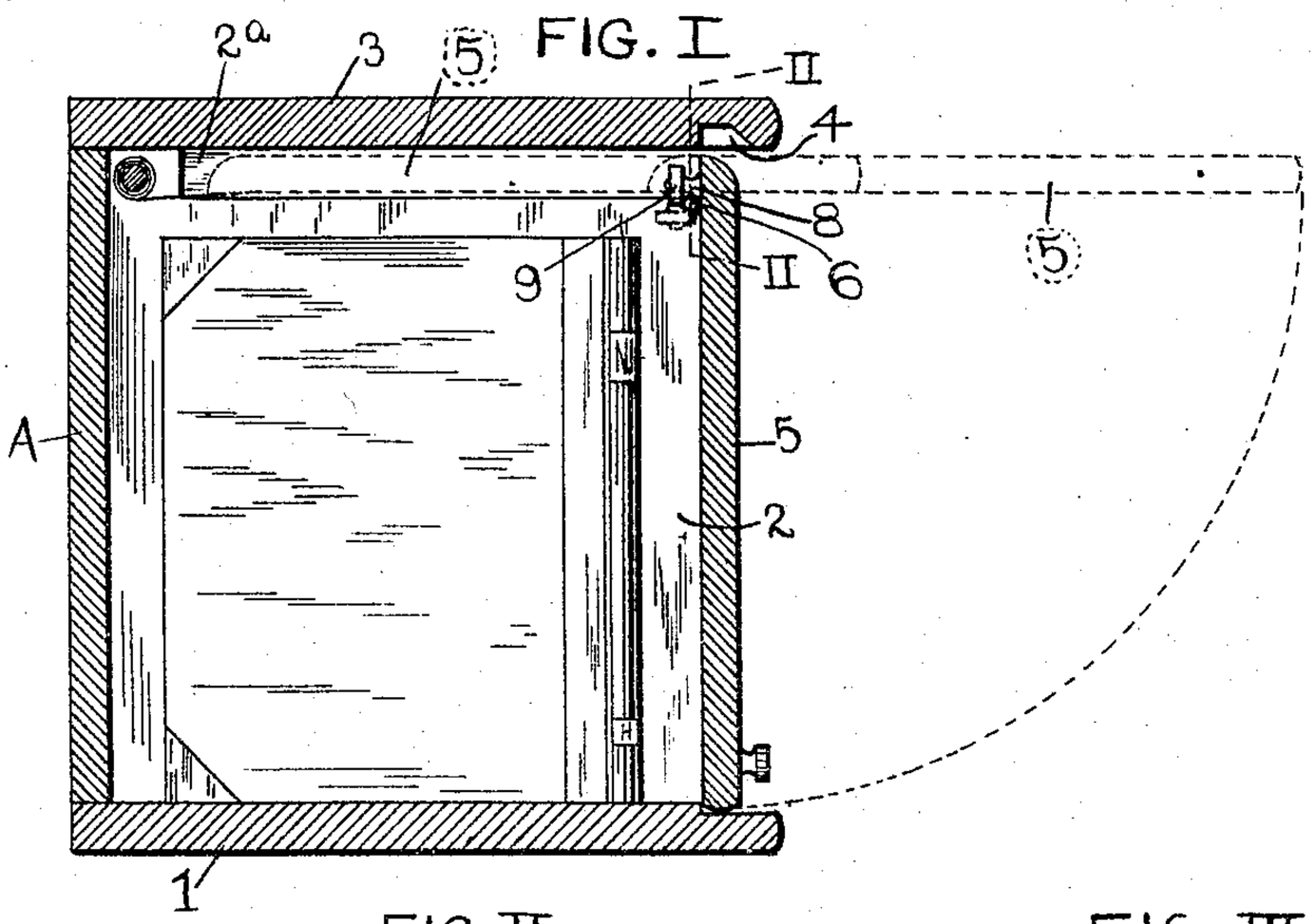


FIG. II

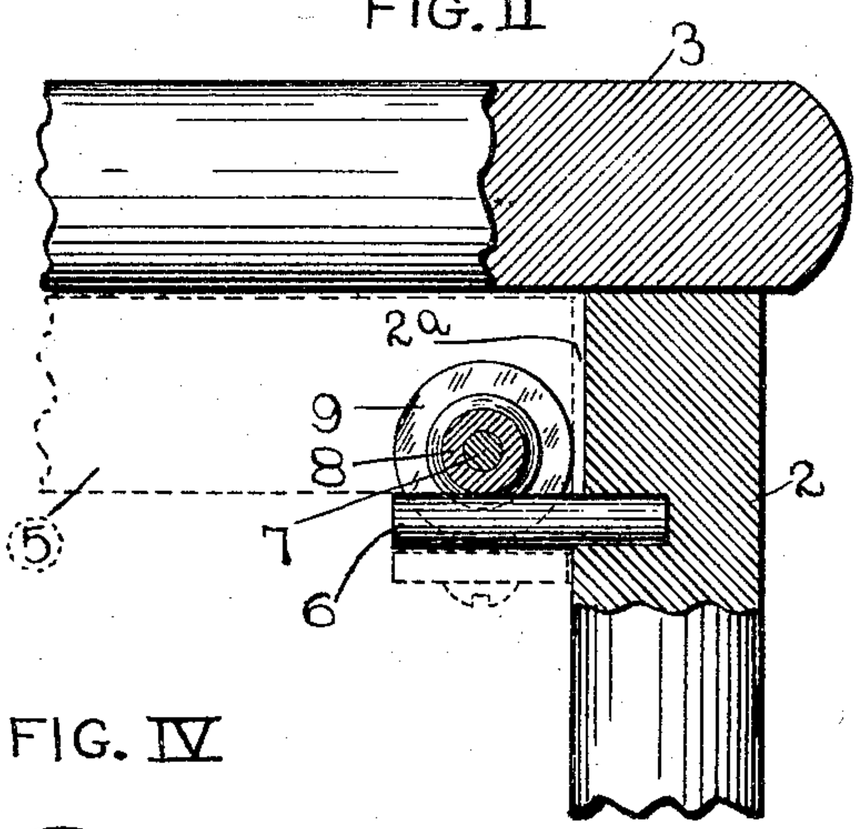


FIG. III

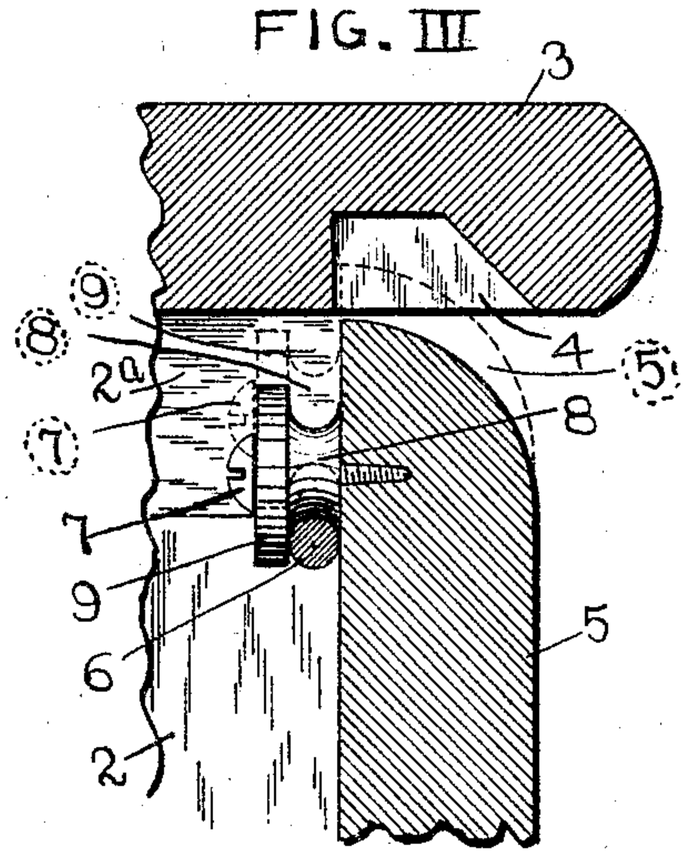


FIG. IV

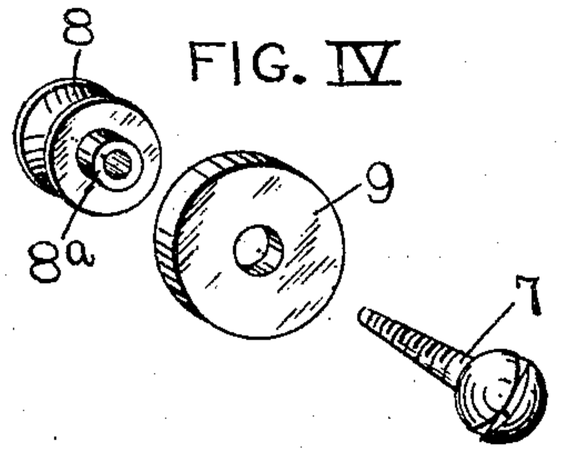
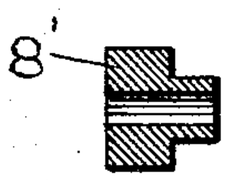


FIG. V



ATTEST.

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No. 776,195. Patented November 29, 1904.

UNITED STATES PATENT OFFICE.

ALEXANDER W. McCLURE, OF CHICAGO, ILLINOIS, ASSIGNOR TO GLOBE FIXTURE & FURNITURE COMPANY, OF QUINCY, ILLINOIS, A CORPORATION.

SLIDING-DOOR HANGER.

SPECIFICATION forming part of Letters Patent No. 776,195, dated November 29, 1904.

Application filed May 25, 1904. Serial No. 209,654. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER W. McCLURE, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sliding-Door Hangers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a sliding-door hanger for bookcases, cabinets, or shelving, or any other use to which it can be economically applied, the object of the present improvement being to furnish a door that is raised and slid inwardly with a hanger having a roller that rides against the end walls of the structure when the door is slid thereinto and withdrawn therefrom.

The improvement is more particularly intended for use in bookcases.

Figure I is a vertical section of a bookcase the door of which is supplied with my hanger. Fig. II is an enlarged section taken on line II II, Fig. I. Fig. III is an enlarged section taken through the upper front portion of the bookcase and its door at the location of one of the hangers. Fig. IV is a perspective view of one of the hanger-rollers, the mating bushing, and screw by which said members are secured to the door of the bookcase. Fig. V is a section of a modification of the roller-bushing.

A designates a bookcase which in the form illustrated is a section of a built-up bookcase.

1 is the bottom of the case, 2 the end walls, and 3 the top. In the lower side of the top 3 at the entrance to the case is a longitudinal groove 4. In the end walls 2, immediately beneath the top 3, are grooves 2^a.

5 is a door that closes the front of the bookcase.

6 designates pins seated in the end walls 2 and projecting inwardly therefrom at the bottoms of the grooves 2^a.

7 designates screws seated in the door 5 at its inner sides and near its top edge. Rotatably mounted on these screws are bushings 8 and rollers 9, the former of which rest upon the pins 6 when the door is in closed position and the latter of which occupy positions at the rear of said pins when the door is closed and ride against the inside faces of the end walls 2 beneath the grooves 2^a when the door is moved into open position and slid inwardly into the bookcase A, in which instance its ends travel in the end-wall grooves 2^a.

The members 8 and 9 are preferably separate pieces, as illustrated in Fig. IV, the roller 9 being fitted to a stem 8^a on the bushing 8, though, if desired, these parts may be integral. The bushing 8 may be grooved, as seen in Figs. I to IV, inclusive, or may have a straight edge, as illustrated by the modification shown in Fig. V, in which the bushing is designated as 8′.

The edges of the rollers 9 are so applied to the door 5 as to occupy positions preferably exactly flush with the ends of the door, as most clearly seen in Fig. II. When the door 5 is in closed position, it hangs suspended, due to the engagement of the bushings 8 and rollers 9 with the pins 6, in which instance the rollers project downwardly in the rear of the pins 6 to prevent displacement. In opening the door its lower edge is swung upwardly from the bottom, as illustrated by dotted lines, Fig. I, and then slid rearwardly into the bookcase in the grooves 2^a of the end walls 2. As the door is slid into the case the rollers 9 ride against the end walls 2 beneath the grooves 2^a, and thereby avoid binding of the door, as will be readily understood. When the door is closed, the rollers ride forwardly against the case end walls until the pins 6 are reached, when the door may be lowered into vertical position and the bushings and rollers will again engage the pins 6 to uphold the door. The door may be readily removed from the bookcase, if so desired, at any time by raising it vertically when in closed position, as indicated by dotted lines, Fig. III, when the rollers 9 will clear the pins 6, thereby permitting a forward movement of the hangers to separate them from the pins with which they were previously engaged. The vertical movement of the door for the purpose of removal is permitted by the groove 4 in the under side of the bookcase-top, into which the

top edge of the door enters when it is raised vertically while in closed position.

While I have described my improvement as applied to a bookcase, it is obvious that it may be applied to a cabinet or any other similar article, such as store-shelving, to all of which the term "case" may be applied as properly descriptive thereof.

I claim as my invention—

1. The combination with a structure of the character named and its door, of rollers rotatively applied to said door and arranged to ride against walls of said structure when the door is moved into the structure, and pins projecting from said walls to receive said rollers when the door is in closed position, substantially as set forth.

2. The combination with a structure of the character named having grooves in walls thereof, of a door arranged to be moved in said grooves when in open position, rollers rotatively applied to said door and arranged to travel against the walls of said structure when the door is moved into the structure, and pins projecting from said walls to receive said rollers when the door is in closed position, substantially as set forth.

3. The combination with a structure of the character named, having end walls, and a top having a groove in its under side at the front of the structure; of pins projecting from said end walls, a door, and rollers rotatively carried by said door at its ends to ride against said end walls when the door is moved into the structure; said rollers and pins being located sufficiently beneath the top of the structure to permit the rollers to clear the pins when the upper edge of the door is raised into the groove in the top of the structure, substantially as set forth.

4. The combination with a structure of the character named, having end walls provided with grooves, of pins projecting from said end walls, a door arranged to be moved into the grooves in said end walls, and bushings and rollers carried by said door at its ends; said bushings being adapted to rest upon said pins when the door is closed and said rollers being adapted to ride against the end walls of the structure when the door is moved inwardly in the end-wall grooves, substantially as set forth.

5. The combination with a walled structure and a normally vertically-hanging, horizontally-sliding door for said structure, of rollers rotatively applied to said door and serving as hanger members for the door when in vertical position and riding rotatively against walls of said structure when the door is moved horizontally, thereby guiding the door, and relieving binding or end friction, and pins projecting to receive said rollers when the door is closed; said pins and rollers being so arranged as to hold the door securely in place, but allowing the door to be disengaged, and taken away at will without removing any part of the door or of the structure to which the door is applied, substantially as set forth.

ALEXANDER W. McCLURE.

In presence of—

GUY A. MEEKER,

EUGENE H. GARNETT.