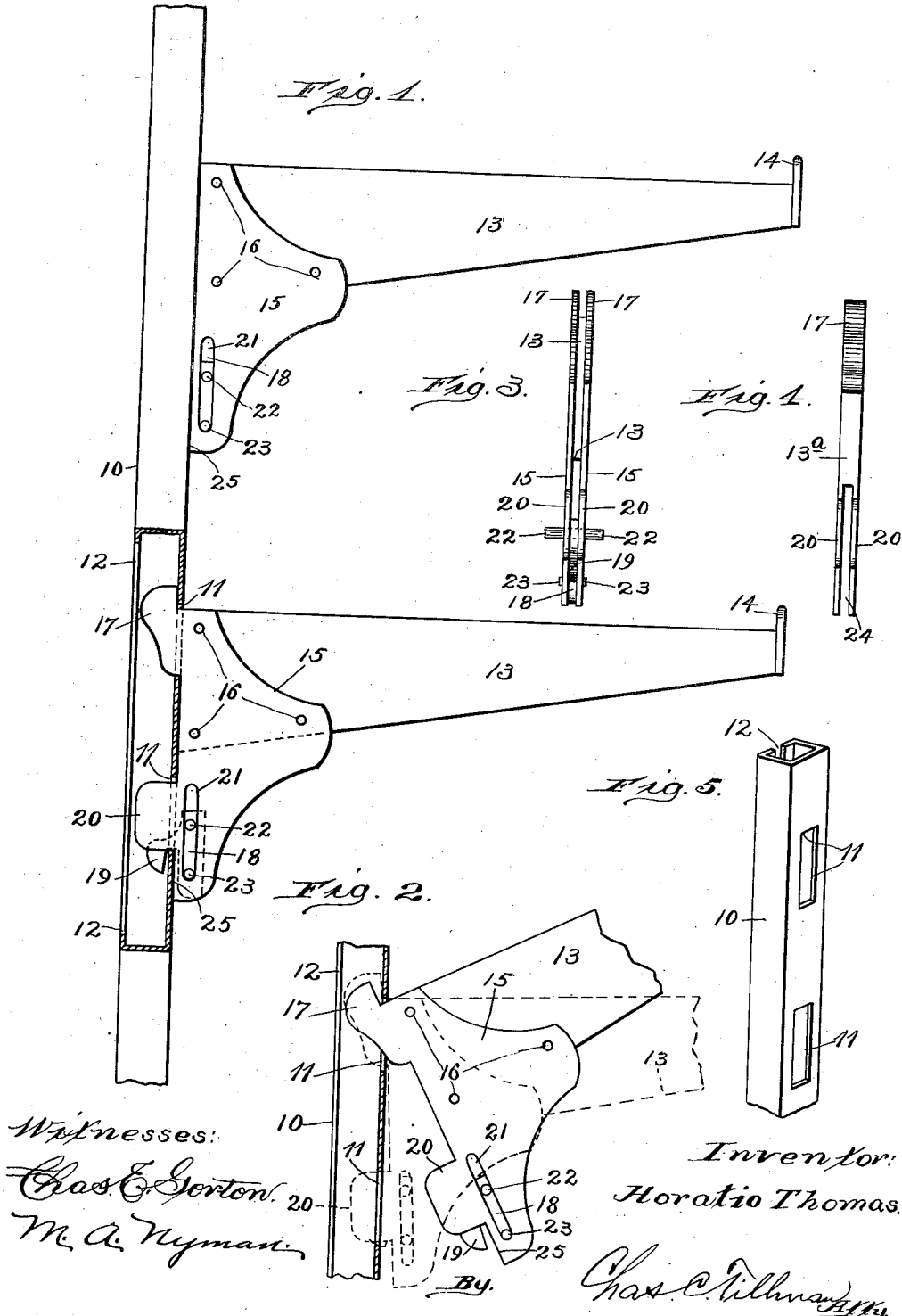


No. 857,543.

PATENTED JUNE 18, 1907.

H. THOMAS.
SELF LOCKING SHELF BRACKET.
APPLICATION FILED SEPT. 21, 1906.



UNITED STATES PATENT OFFICE.

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SELF-LOCKING SHELF-BRACKET.

No. 857,543.

Specification of Letters Patent.

Patented June 18, 1907.

Application filed September 21, 1906. Serial No. 335,553.

To all whom it may concern:

Be it known that I, HORATIO THOMAS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Self-Locking Shelf-Brackets, of which the following is a specification.

This invention relates to improvements in that type of brackets used for supporting shelves and the like, and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The object of the invention is to provide shelf brackets, which shall be simple and inexpensive in construction, strong, durable and effective in operation, and so made that they may automatically and positively lock themselves in position on the uprights or standards used for supporting them, so as to firmly hold them in position and to prevent their displacement until desired, when they may be readily detached or removed from the uprights or supports.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawing, in which—

Figure 1 is a view partly in elevation and partly in section of a portion of a supporting standard or upright, showing two brackets embodying my invention secured in place thereon. Fig. 2 is a vertical sectional view through a portion of the standard or upright, and a view in elevation of a part of one of the brackets, showing it by continuous lines in the act of being engaged with the upright, and by dotted lines another position thereof in the act of engaging it with the standard or upright. Fig. 3 is a rear end view of the bracket-arm. Fig. 4 is a similar view of a modified form thereof;—and—Fig. 5 is a perspective view of a portion of one of the supporting uprights or standards.

Like numerals of reference, refer to corresponding parts throughout the different views of the drawing.

The reference numeral 10 designates an upright or standard used for supporting the

bracket-arms, which standard may be made of any suitable size, form and material, but preferably of metal and hollow and rectangular in cross-section, as shown in the drawing. The front portion or surface of the upright 10 is provided with a series of longitudinally extending openings 11, which are preferably rectangular in shape, as shown, and the rear portion or surface thereof is preferably vertically or longitudinally slotted as at 12, that is, the edges of the piece out of which the upright 10 is formed are slightly spaced apart so as to form a longitudinal slot or channel 12, but this is not essential to the invention. Each of the bracket-arms consists of an arm or bar 13, by preference of flat metal, which may have at its free end an upwardly extending portion 14 employed for holding the shelf in position and two plates 15, one of which is secured by means of rivets 16, or otherwise, on each side of said arm or bar.

As is clearly shown in Figs. 1, 2 and 3 of the drawing, the upper portion of each of the plates 15 projects rearwardly from the rear or inner end of the arm 13 and upwardly therefrom to form engaging extensions or lugs 17, the front upper portions of which are located at right angles to the upper surface or edge of the arm 13, so that when said lugs or extensions are inserted through one of the openings 11 in the standard and the arm 13 is caused to assume its normal position, the straight or vertical edges of the lugs 17 will rest against the inner surface of the front portion of the upright 10 just above the opening 11 therein, which they occupy. Each of the plates 15 extend downwardly some distance below the lower edge of the arm 13, and are spaced apart, as shown in Fig. 3 of the drawing, to receive and carry the movable locking member 18, which has a rearwardly and downwardly extending projection 19, which is preferably curved on its rear edge to facilitate its insertion into or passage through one of the openings 11 in the upright. Each of the plates 15 is provided on its rear lower portion with a rearwardly extending lug or projection 20, which are spaced apart to permit of the movement therebetween of the downwardly extending projection 19 on the locking member. Just in front of the extensions or projections 20 each of the plates 15 is provided with a vertical slot 21, which register

with one another, and are employed for the reception and operation of pins 22 and 23 on the locking member 18, the former of which pins project considerably to either side of the plates 15 and is used for moving the locking member 18, while the latter pin 23, as well as the pin 22, will act as guides in the slot 21 for the movement of the locking member.

Instead of constructing each of the bracket-arms of three pieces, as above described, that is, of the member 13 and two plates 15 secured on each side of the rear portion thereof, I may make each of the bracket-arms of a single piece of metal 13^a formed at its rear lower portion with a slot 24, for the reception and operation of the locking member 18, in which construction the upper rear portion of the arm will be provided with a rearwardly and upwardly extending lug or projection 17, of the same shape or form as one of those shown in Figs. 1 to 3, inclusive, and the lower rear portion of the member or bar 13^a will be provided with rearwardly extending lugs or projections 20 and vertical slots, for the reception and operation of the pins 22 and 23, as in the first above-described construction.

The operation of the device is simple and as follows:—When it is desired to connect the bracket-arms to the upright or standard 10, the lug or lugs 17 on the upper rear portion of the bracket-arm or bar is inserted into one of the openings 11 of the upright, when by lowering the arm or bar to the position shown by dotted lines in Fig. 2 of the drawing, it is apparent that the rounded portion of the projection 19 on the locking member 18 will come in contact with the lower edge of one of the openings 11 of the upright, when by pressing the arm still lower, the said projection and locking member will be raised between the plates 15 and lugs 20 until the

straight edges 25 of the plates 15 will rest against the outer surface of the front part of the upright, at which time the locking member 18 and projection 19, which it carries, may be lowered by gravity, or otherwise, so as to engage the upright 10 below said opening therein. To release and remove the bracket-arms, the locking member 18 of each arm may be moved upwardly by means of the pin 22, so that the projection 19 will be disengaged from that portion of the upright below the opening therein, in which the extensions 20 are located.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters-Patent, is—

1. The combination with an upright standard having spaced apart openings therein, of a bracket-arm having at the lower and upper portions of its rear end extensions to fit in said openings, and a locking member movably mounted on the rear lower portion of the bracket-arm and having a rearwardly and downwardly extending projection, substantially as described.

2. The combination with an upright standard having spaced apart openings therein, of a bracket-arm having at its rear upper portion a rearwardly and upwardly projecting extension and provided on its rear lower portion with rearward spaced apart extensions and slots in its sides, a locking member located between the rear lower portion of the sides of the bracket-arm and having a rearwardly and downwardly extending projection, and a pin carried by the locking member and fitting in said slots, substantially as described.

HORATIO THOMAS.

Witnesses:

CHAS. C. TILLMAN,
M. A. NYMAN.