No. 861,900. PATENTED JULY 30, 1907.

W. RHODES & R. MACONOCHIE.

ADJUSTABLE BRACKET OR FITTING FOR SUPPORTING SHELVES AND OTHER ARTICLES.

APPLICATION FILED FEB. 25, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

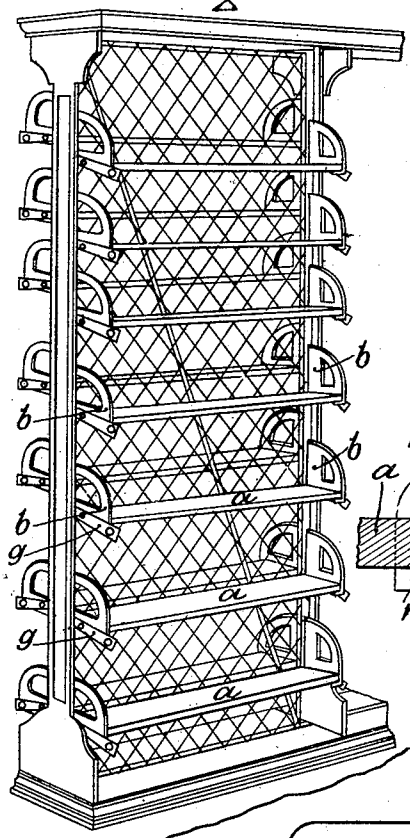


Fig. 2.

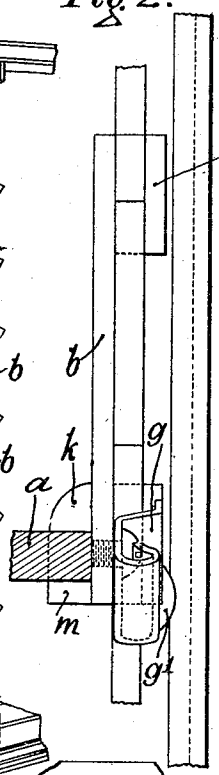


Fig. 3.

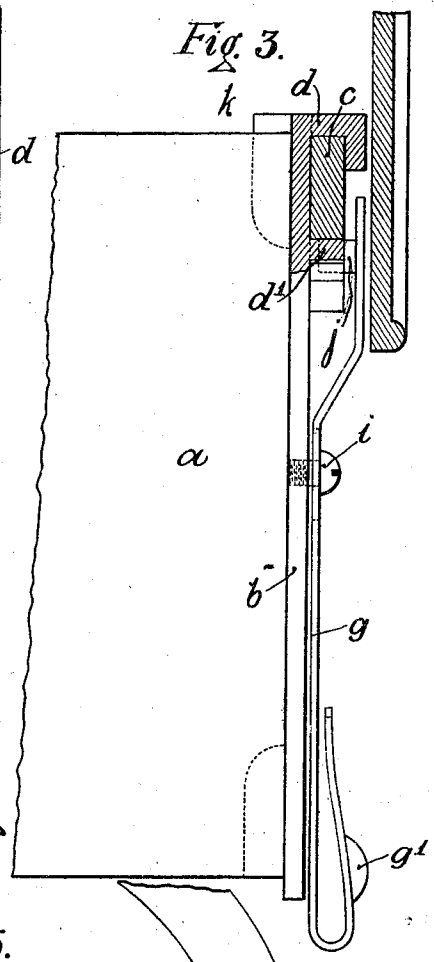
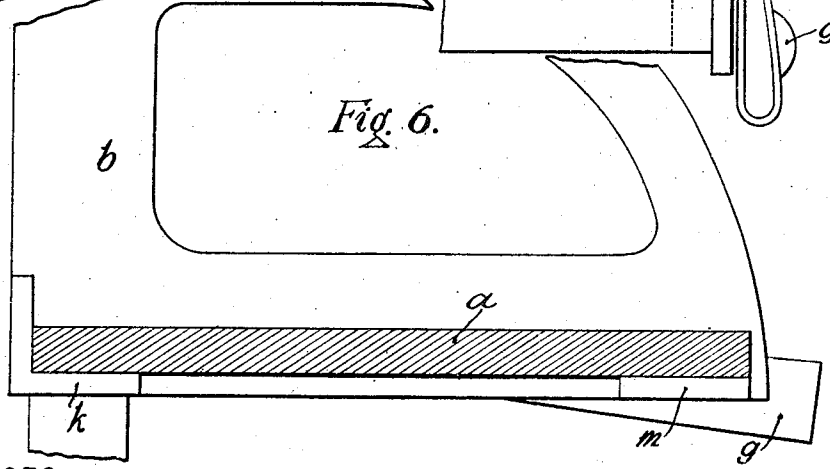


Fig. 6.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 4.

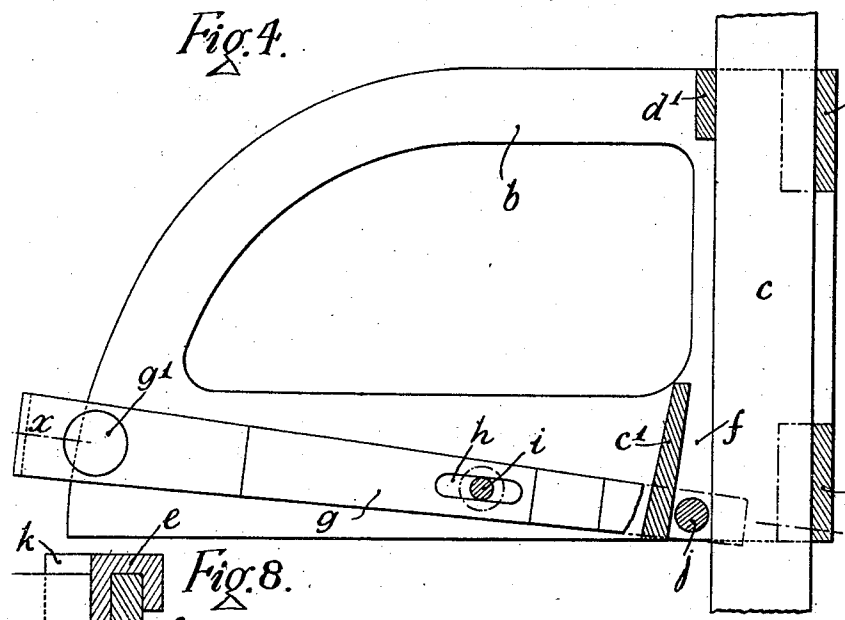


Fig. 7.

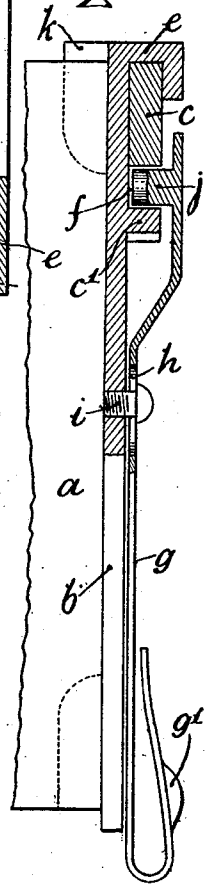


Fig. 8.

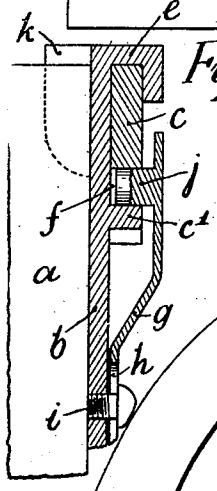


Fig. 5.

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WALTER RHODES, OF LEEDS, AND RICHARDSON MACONOCHIE, OF BIRMINGHAM, ENGLAND.

ADJUSTABLE BRACKET OR FITTING FOR SUPPORTING SHELVES AND OTHER ARTICLES.

No. 861,900. Specification of Letters Patent. Patented July 30, 1907.

Application filed February 25, 1907. Serial No. 359,198.

To all whom it may concern:

Be it known that we, WALTER RHODES, engineer, and RICHARDSON MACONOCHIE, director, both subjects of the King of Great Britain, residing, respectively, at Scholes Hall, near Leeds, in the county of York, England, and at Fore street, in the city of Birmingham, England, have invented certain new and useful Improvements in Adjustable Brackets or Fittings for Supporting Shelves and other Articles, of which the following is a specification.

This invention has relation to adjustable shelf and other brackets or supporting fittings of the self-locking type, and has for its principal object, to provide such brackets or fittings with improved and simplified means whereby they are automatically secured or self-locked in any position into which they may be placed or adjusted.

The improved adjustable fittings are adapted for supporting book shelves in libraries and for carrying adjustable shelving generally also for carrying glass and other shelving, rods and the like for displaying goods, and they consist essentially of a bracket having suitable guides and adapted to slide up or down rigid standards or vertical rails to which the said bracket is clamped or locked, on being released after adjustment, by self acting wedging arrangements as hereinafter described.

Figure 1 of the accompanying drawings represents a book-case or the like provided with the improved adjustable shelf brackets constructed in accordance with this invention. Fig. 2 shows an edge view of the right hand end bracket of one of the shelves, upon a larger scale. Fig. 3 is a plan, partly in section of the said adjustable bracket. Fig. 4 represents, partly in section, the inner side of one of the brackets, showing more clearly the automatic locking means, the same being shown in its released or unlocked position to admit of raising or lowering the bracket. Fig. 5 shows, also partly in section, the inner side of one of the brackets, with the automatic clamping means in its locked position for the purpose of securing the bracket. Fig. 6 shows in elevation the outside of one of the said supporting brackets, the shelf being shown in section. Fig. 7 is a section on dotted line x Fig. 4, the locking means being in its inoperative position. Fig. 8 is a section on dotted line x^1 Fig. 5, the locking means being in its clamping position.

The same letters of reference indicate corresponding parts in each of the figures of the drawings.

In carrying out the invention in its application to a book-case or adjustable library shelving as shown in the drawings, each shelf a is carried by and is preferably detachably secured to, a pair of brackets b adapted to respectively slide or have a vertical adjusting movement upon wooden or metallic uprights or standards c of suitable section. Each said bracket b is provided upon the upper part of its outer side (that is, upon the opposite side to that from which the shelf extends) with a pair of guide-lugs d, d^1 and of which the lug d is of a hook-like section so as to partially embrace the upright or guide rod c on which the fitting slides and prevent the separation or detachment of said upright and fitting from one another without however interfering with their relative sliding movement or vertical adjusting action. The said bracket is also provided at its lower portion with a hook-like guide lug e also partially embracing the upright c while to provide for the locking of each bracket after adjustment, an inclined lug or stationary abutment c^1 is provided opposite to the lug e and opposed to the front edge of the upright c, so that a taper or wedge-shaped space or clearance f separates the two parts.

Pivoted to the lower side of the bracket is a locking arm or lever g provided with a slot h working over a pin i fixed on the bracket, so that the arm is adapted to have a compound angular and sliding movement, and the inner end of this arm is provided with a stud j adapted to be engaged with the wedge shaped space or clearance f between the inclined lug c^1 and the edge of the upright c while the other and outer end of the lever g is provided with a counterweight at g^1 the tendency of which is to tilt the said lever and lift or force the stud j towards the smaller end of the said wedge shaped space f and bind or wedge the said stud between the inclined side of the lug c^1 on the bracket and the opposite side of the guide rod c, and thus automatically clamp the former to the latter, and the tendency of the bracket to slide down the rod under the influence of the weight of the load upon a shelf only tends to force the wedging stud further into the recess and obtain a more rigid and secure connection, but by raising the weighted end of the lever or arm g, the stud j is depressed from its wedging position and leaves the bracket free to be raised or lowered upon the upright or rod for adjustment to a fresh position, after which, when the arm is released, the counterweight on the same again takes the stud into its locking position and automatically secures the bracket. The shelves may be detachably secured to the brackets in any suitable manner, such as by resting on supports k, m attached to or integral with the sides of the brackets.

Having fully described our invention, what we desire to claim and secure by Letters Patent is:—

1. In adjustable shelving, the combination of smooth standards, shelf supports or brackets having guide extensions for partially surrounding the standards to slidably connect the brackets with said standards, arms pivotally connected to the brackets, and a stud carried on each arm and having a frictional roller and adapted to be brought

into wedging position intermediate one of the guide extensions and the standard for locking the brackets against movement on the standards.

2. In combination with an upright, of a shelf support having guides to engage the upright for sliding engagement of the support thereon, an arm connected with the support and having a compound angular and sliding movement, and means extending from one end of the arm and for wedging engagement between the guides and upright to hold the bracket in an adjusted position on said upright.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

WALTER RHODES.
RICHARDSON MACONOCHIE.

Witnesses:
J. MURRAY,
JAMES K. DARBY.