Oct. 27, 1925. 1,559,446

A. G. MASS

COMBINED CLAMP AND HANGER FOR BOOKS

Filed Jan. 22, 1925

Fig. 1.

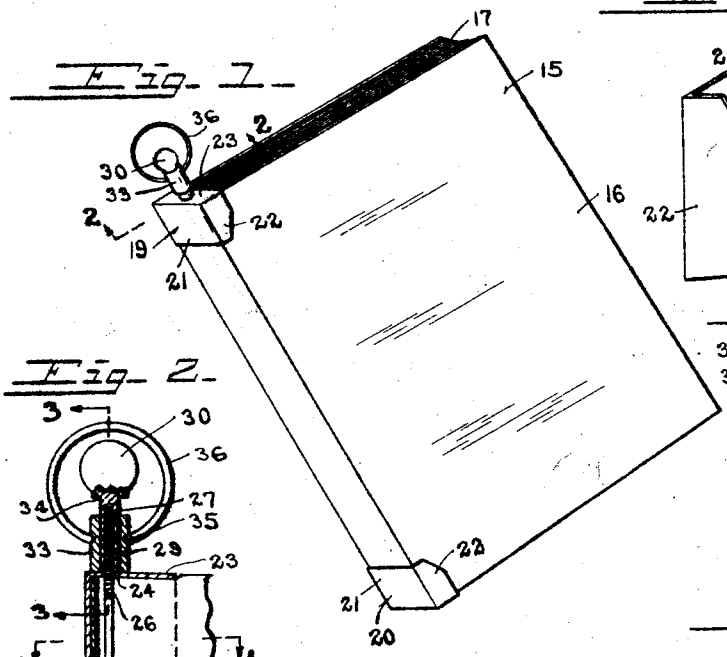


Fig. 2.

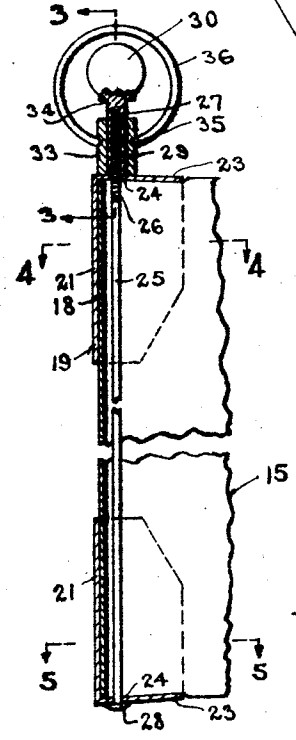


Fig. 3.

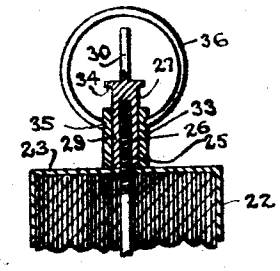


Fig. 6.

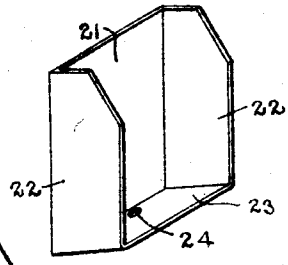
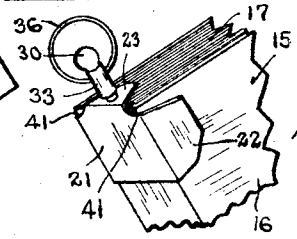


Fig. 7.



MODIF'N 1

Fig. 4.

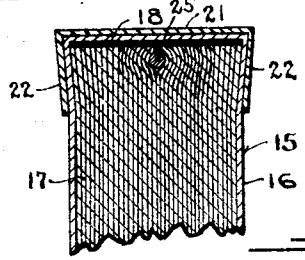


Fig. 5.

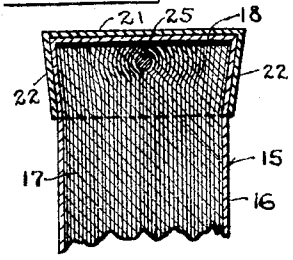


Fig. 8.

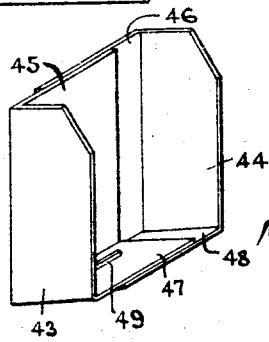
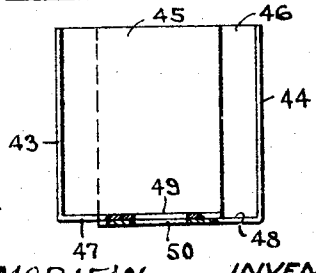


Fig. 9.



MODIF'N 2.

INVENTOR.

Augustus G. Mass,

by H. A. Seibold, His Attorney.

Patented Oct. 27, 1925. 1,559,446

UNITED STATES PATENT OFFICE.

AUGUST G. MASS, OF CINCINNATI, OHIO.

COMBINED CLAMP AND HANGER FOR BOOKS.

Application filed January 22, 1925. Serial No. 4,086.

To all whom it may concern:

Be it known that I, AUGUST G. MASS, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Combined Clamps and Hangers for Books, of which the following is a specification.

It is the object of my invention to provide new and improved hanging means for books to which reference is frequently made, such as telephone directories, catalogs and the like; further, to provide new and improved means whereby the corners at the back of the book are clampingly connected so as to protect the binding of the book and means provided in association therewith for readily suspending the book; and, further, to provide novel means whereby to adjustably clamp books of various sizes.

The invention will be further readily understood from the following description and claims, and from the drawings, in which latter:

Fig. 1 is a perspective view of my improved device applied to a book.

Fig. 2 is a longitudinal section of the same, taken on the line 2—2 of Fig. 1, and partly broken away.

Fig. 3 is a longitudinal section of the same, taken in the plane of the line 3—3 of Fig. 2, and partly broken away.

Fig. 4 is a cross-section of the same, taken in the plane of the line 4—4 of Fig. 2, partly broken away.

Fig. 5 is a cross-section of the same, taken in the plane of the line 5—5 of Fig. 2, and partly broken away.

Fig. 6 is a perspective view of one of the clamps.

Fig. 7 is a perspective view of a modified form of my improved device, partly broken away.

Fig. 8 is a perspective view of a second modified form of the clamp; and,

Fig. 9 is a side elevation of the same, partly in section.

Referring to the drawings more in detail, 15 represents a book, for instance, a telephone directory, usually bound in a paper or flexible cover, indicated at 16. The leaves 17 are usually secured to the cover by means of an adhesive 18, to form the binding of the book.

My improved device comprises end clamps 19, 20, exemplified as socket-pieces, respectively having a rear wall 21, side walls 22, and an end wall 23, the latter provided with an aperture 24 in close proximity to said rear wall. A tie-rod 25, shown threaded as at 26, and a nut 27 threaded thereover, are arranged to draw said socket-pieces toward one another. The tie-rod has a head 28. In the present exemplification the end walls are arranged to be received between said head and said nut. The nut is represented as having an elongated shank 29 and a head 30, which permits ready manipulation by the fingers.

The tie-rod is arranged to be received between leaves of the book adjacent to the binding 18 thereof. The side walls are exemplified as slanting inwardly from the lateral edges of the rear wall, or converging toward each other, in order to clamp the respective corners of the book at the back thereof firmly therebetween, the forward edges of the side walls extending in front of the lateral position of the tie-rod therebetween, for clamping the leaves of the book toward each other in front of said tie-rod.

The end walls 23 also preferably slant inwardly from the outer edges of the rear walls, the said end walls converging toward each other, so that the ends of the leaves of the books may be drawn toward each other when the corner socket-pieces are clamped in place, for aiding in the firmness of this reinforcement for the binding of the book.

A collar 33, shown in the form of a sleeve, is received about the shank 29 of the nut 27, and maintained thereon by means of a shoulder 34 on said nut. It preferably has axial and rotative movements about the shank. Recesses 35 in said collar receive the ends of a split-ring 36, forming a loop, swiveled to the book, by means of which the book is adapted to be suspended from a suitable hook or nail about which the ring is received.

The tie-rod 25 is inserted between leaves of the book, approximately in the middle portion of the book at its back or binding edge, with the socket-pieces 19, 20, received over the respective corners of the back of the book, the tie-rod extending through the apertures in the end walls of the socket-pieces. The collar 33 with the loop thereon, being received about the shank of the nut, the nut is threaded to the tie-rod, with the corner-pieces held snugly in position, for drawing the corner-pieces toward each other

and clamping the same securely at the corners of the book. The converging walls of the socket-pieces aid in the clamping action upon the back of the book for additional rigidity and security. The side walls of the socket-pieces prevent severance of the leaves at the binding.

The lengths of the threaded connections between the tie-rod and the shank of the nut provide for variations in the heights of books to which my improved device may be attached.

In the modification shown in Fig. 7, the corners of the socket-pieces are provided with recesses 41, through which the side edges of the corners of the book at its back are arranged to project, so as to form cushioning corners for the assembled devices, whereby marring of furniture is avoided, and, in event of dropping the book and the striking thereof at one of the corners of its back upon a piece of furniture or object, the softer corners, for instance, the paper corners of the book, thus striking, are less likely to cause scarring or injury to the part struck, than if such striking were had by a corner of the socket-piece, which for convenience and cheapness is usually struck up from the sheet-metal.

In Figs. 8 and 9, I have shown a further modification, whereby the side walls of the socket-pieces are adapted to be adjusted toward and from each other for accommodating various thicknesses of books. In this modification each of the socket-pieces is arranged to comprise relatively laterally shiftable sections 43, 44, the rear walls 45, 46, of which, and the end walls 47, 48, of which, are arranged to overlap. The end walls are provided with slots 49, 50, through which the tie-rod is arranged to extend for permitting lateral adjustment between the side sections.

The side sections are forced toward each other to clamp the leaves at the corners of the back toward each other, and while so clamped, the nut 27 is tightened, thereby locking the clamped sections in place, and forcing the sections at the respective corners of the back toward one another.

In the modification shown in Figs. 7, 8 and 9, the side walls and end walls are also preferably convergingly arranged.

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

1. In a device of the character described, the combination of a pair of end clamps arranged to be received about the opposite corners of a book at its back, tension clamping means connecting said end clamps for clamping said end clamps upon said book and said end clamps comprising side walls having movement endwise of said book, with said book serving as a spacer between said end-clamps for holding the same in separated relation, and swivel means at one end of said clamping means for supporting said device.

2. In a device of the character described, the combination of opposed corner socket-pieces having converging walls, a threaded tie-rod arranged to be received through the book between leaves thereof adjacent to its back and connecting said socket-pieces, a nut for said tie-rod arranged to draw said socket-pieces toward one another to clamp the back of the book lengthwise between said socket-pieces, and a suspending device acting on said rod.

3. In a device of the character described, the combination of opposed corner socket-pieces having lateral converging walls and end converging walls, arranged to clampingly receive the corners of the back of a book between them, a tie-rod arranged to be received between leaves of the book at its back connecting said socket-pieces and comprising adjusting means for clampingly drawing said socket-pieces toward each other to clamp said back therebetween, and suspending means for said tie-rod.

4. In a device of the character described, the combination of opposed corner socket-pieces respectively comprising a rear wall, side walls and an end wall, said socket-pieces arranged to be received about the corners at the back of a book with the sockets thereof presented toward each other, a headed threaded tie-rod projecting through said end walls and arranged to be received between leaves of the book at the back of the latter, a nut having an elongated threaded shank threaded to said threaded tie-rod, a sleeve axially movable and rotatable about said threaded shank, and a loop on said sleeve, said end walls located between the head of said tie-rod and said threaded shank and arranged to clamp the back of said book lengthwise between said end walls.

5. In a device of the character described, the combination of opposed corner socket-pieces respectively comprising relatively laterally shiftable side-elements each provided with a side wall and an end wall, the latter having a slot therein, a tie-rod arranged to be received between leaves of the book at the back of the latter and through said slots, said side-elements arranged to be pressed toward each other for pressing the corner of the book laterally between said side walls and shifting the walls of said slots across said tie-rod, means coacting with said tie-rod to clamp said end walls toward each other whereby to clamp said back between said end walls and said side elements in laterally pressed positions, and suspending means for said device.

6. In a device of the character described,

the combination of opposed corner socket-pieces respectively having end walls and side-walls, a tie-rod and adjusting means therefor to clamp said socket-pieces toward one another with the back of the book between them, and suspending means for said tie-rod, and the corners of said socket-pieces between said end walls and side walls being recessed for exposing the corners of the book through said recesses.

In testimony whereof, I have hereunto signed my name.

AUGUST G. MASS.