(No Model.) 2 Sheets—Sheet 1.

O. F. WEGENER.

SHELF SUPPORT.

No. 442,468. Patented Dec. 9, 1890.

Fig. 1.

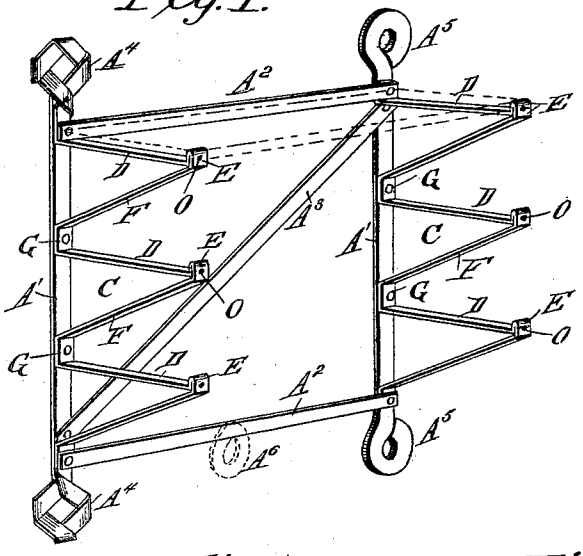


Fig. 2.

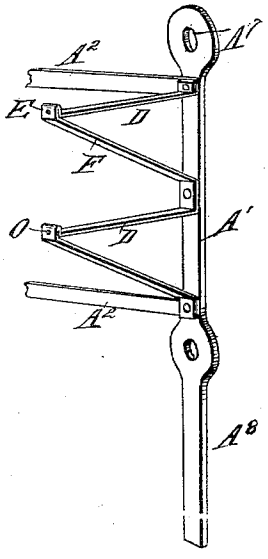


Fig. 3.

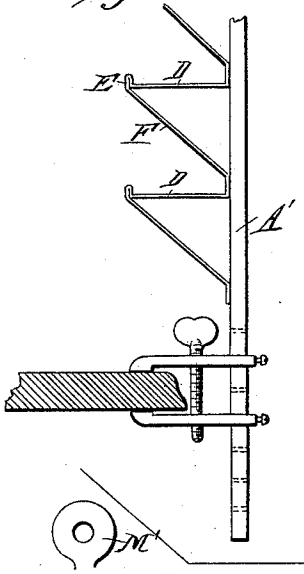


Fig. 4.

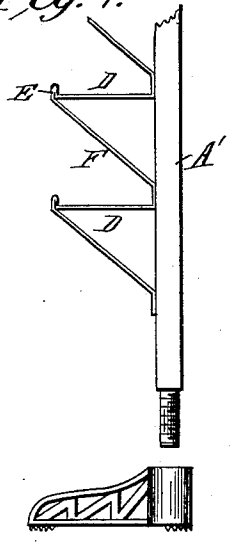
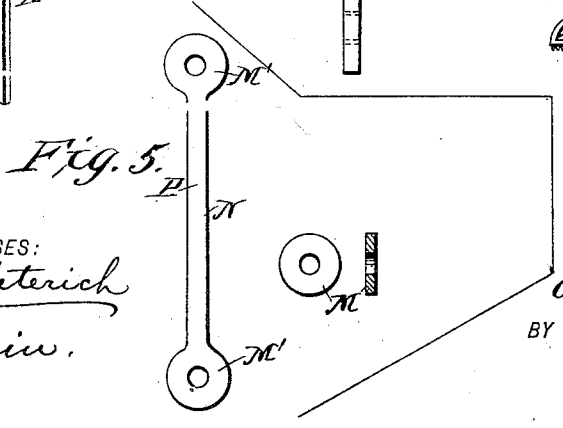


Fig. 5.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 6.

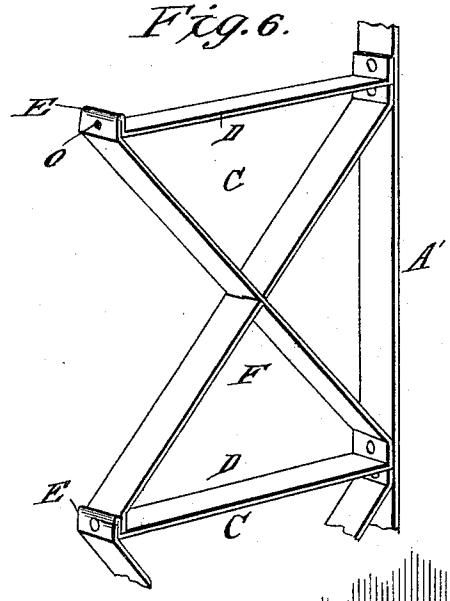


Fig. 7.

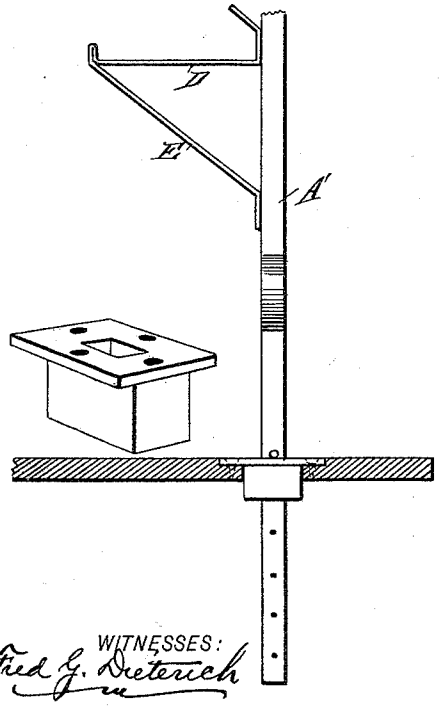
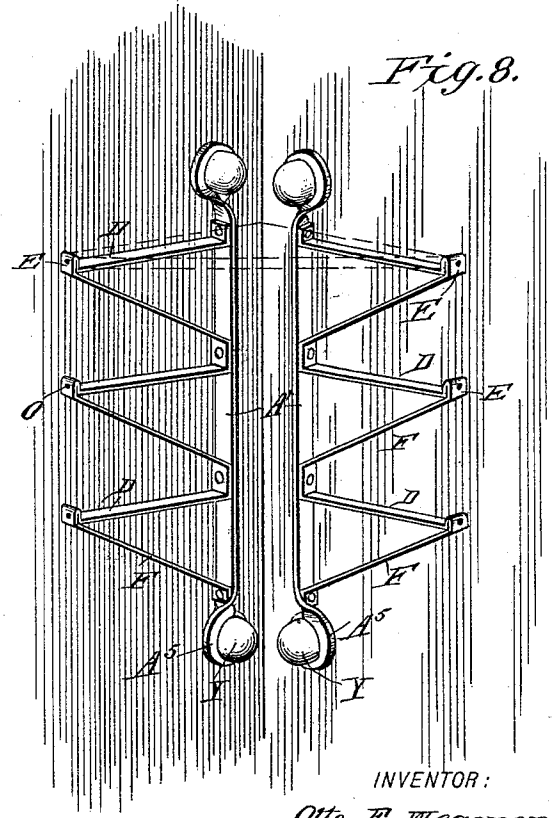


Fig. 8.



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UNITED STATES PATENT OFFICE.

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SHELF-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 442,468, dated December 9, 1890.

Application filed December 14, 1889. Serial No. 333,819. (No model.)

To all whom it may concern:

Be it known that I, OTTO F. WEGENER, of Seattle, in the county of King, Washington Territory, have invented a new and useful Improvement in Shelf-Supports, of which the following is a specification.

My invention is an improvement in supports for shelves and the like; and the objects of the invention are to do away with the present mode of supporting single shelves upon separate brackets, which are unhandy to put up, will injure the wall when attached to or removed from it, and through their clumsiness deface the wall when put up, in consequence of which deficiencies of the present shelf-support the use of the shelves, which are one of the most necessary pieces of furniture for the house, the office, or the workshop, is considerably impaired.

My invention furnishes, to remedy this evil, an improved shelf-support, which is light, neat-looking, and strong, and will support a number of shelves with no more expense, labor, or fastenings in the wall than is now needed for a single shelf.

My shelf-support may easily be attached to or removed from a wall without injuring the latter. It may be placed upon the floor, table, or similar horizontal surface where shelving is desired, ready to receive the same. It may be clamped or otherwise attached to a table, stand, drawing-board, working-bench, or similar piece of furniture of the house, office, or workshop, and it may, when so attached, be lowered or raised, together with its shelves, to suit the convenience of the person using them. It may be used without shelves as a repository for maps, a support for pigeon-hole frames, book-cases, and similar articles, and while preferably cheap of manufacture, so as to bring it within the reach of the poorest, it may likewise be ornamented in any style of art, and is thus in every way adapted to be used advantageously in any household, office, or workshop. To obtain these objects I have used the constructions and combinations of parts shown in the accompanying drawings and hereinafter described.

In the drawings, Figure 1 is a perspective view of a shelf-support constructed according to my invention, a shelf being indicated in dotted lines on one pair or set of the brackets. Fig. 2 shows in detail a different construction of the suspending-eye as used principally in connection with the standard, which is extended downward for the purpose of being attached or clamped to a table. Fig. 3 shows the clamping arrangement to be used, when desired, in connection with my shelf-support. Fig. 4 shows the base portion or feet by which the support is enabled to stand upon the floor or similar surface. Fig. 5 exhibits the construction of the rubber washers and back lining used to keep the walls from being injured. Fig. 6 shows a shelf-support provided with double braces to strengthen the entire construction. Fig. 7 is a view illustrating a mode of attaching my shelf-support to a table, different from the clamping arrangement shown in Fig. 3. Fig. 8 shows a shelf-support constructed according to my invention for the purpose of being attached to the walls where forming an angle.

The support comprises the main frame and the brackets. Both parts may be made all of one piece or of several pieces, preferably the latter when the shelves are to carry weighty articles. The main frame is formed with side bars or standards A', cross or connecting bars A^2, and in cases where considerable strength is needed with diagonal braces A^3. The standards have at their top and bottom ends eyes or loops A^4 and A^5, of which the former A^4 is used where the standards and brackets are all of one piece of material and A^5 where the standards and brackets are made of separate pieces. In case of the shelf-support being intended for the support of very light articles, there may only be one eye or loop at the bottom, formed as shown in dotted lines at A^6. The standards may be any safe distance apart, and there may be more than two used in one support; but the distance between them should correspond with the distance between the studding and furring strips of the walls and partitions of buildings, which are generally sixteen inches and twelve inches, respectively, from centers.

While the loops are there for the purpose of suspending the support against a wall, it is manifest that the support may have base portions or feet, as shown in Fig. 4, to permit it to stand upon the floor or a table or similar horizontal surface; or it may have clamps, as

shown in Fig. 3, or be attached to a table by means of pockets exhibited in Fig. 7, by either of which methods the support may, if desired, be attached to any suitable piece of furniture where shelving may be needed. In order that while so attached the support may be lowered or raised by means of the construction shown in Figs. 3 and 7, the standards are to be extended downward below the lower loop, as illustrated at A^8 in Fig. 2, and when the standards are so extended the construction of the eye or loop A^7 in Fig. 2 is preferable, being obtained by first flattening the respective parts of the standard and then punching a hole of the desired size through it. This mode of constructing the loop may be used in any case where the standard is sufficiently heavy to be safely flattened out and punched.

The brackets C C are constructed from strips or bars of metal bent to form the horizontal portion or seat D, the upwardly-projecting portion or keeper E at the outer end of the seat D, the brace F, extending at an incline inwardly from the lower end of the keeper E to the standards A′, forming then the upright or connecting portions G, lapped against and secured to the standards A′, preferably by riveting, as shown.

The keeper E is perforated in its center at O for the purpose of admitting a screw, which is to be screwed into the shelf when put upon the support to hold the shelf in its place and strengthen the support sidewise.

By this construction, it will be seen, I provide a simple novel construction by which to support the shelf-boards, which may be applied in the manner indicated in dotted lines, Figs. 1 and 8, and the fastenings or connections between each of the brackets and the standards serve to brace and re-enforce the connection of all the other brackets held to the same standard.

It is obvious that the outer ends of the brackets or the other parts of the supports may be ornamented in any suitable manner; also, that, where desired, the double arrangement of brace-rods, as shown in Fig. 6, may be employed.

In the manufacture of the support I prefer to use flat or round metal strips, and steel is preferred in the manufacture, as will be understood by those skilled in the art.

Rubber washers M may be used between the standards A′ and the wall against which the bracket is secured.

In cases where the shelving intended to be placed upon the support is to carry heavy articles and the standards A′ might, through the weight bearing upon them, be expected to be pressed into the wall instead of the washer M, another cushioning contrivance will be used, (shown under letter N,) such cushion N consisting of two washers M′ M′ at the top and bottom and a connecting-band P, which is of the same length as the standard with which it is to be used and to answer as a back lining between the standard and the wall. The cushion N is likewise to be of india-rubber.

For supports which are to be permanently suspended against a wall, the head of the fastening-screw is preferably to be larger than the loop with which it is to be used; but in cases where the support is to be occasionally removed from the wall and placed upon or attached to a table or similar article the head should be a trifle smaller than the interior size of the loop, so that the frame may easily be lifted on or off the screws without having to unscrew the latter.

When the support is to be used in the angle formed by walls, the standards A′ A′ have no connecting or cross bars A^2 nor any braces A^3, but are separately attached one to each wall. The standard and brackets are connected with each other the same as for the support shown in Fig. 1; but the eyes or loops at the ends of the standards must be formed so as to be parallel with the sides of the brackets, all as illustrated in Fig. 8, in which a shelf is indicated in dotted lines.

It is obvious that the shelf-support in any of its various postions on the wall, floor, or table through its mode of construction with the seats D, the keepers E, properly braced as they are and connected with the standards A′, may be used without any shelves as a repository for maps or the support of pigeon-hole frames or book-cases, or of any other similar article, which can be placed in the same manner as shelves upon the bracket-seats D, and will be kept from sliding off said seats by the keeper E.

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

1. The improved shelf-support herein described, comprising the main frame and the brackets, arranged one above the other and formed from strips of metal bent to form the horizontal portions or seats D, the braces F, and the upright or connecting portions G, such portions G being lapped against and secured to the main frame, substantially as set forth.

2. As an improved article of manufacture, the shelf-support herein described, consisting of the main frame having standards and cross or connecting bars and diagonal braces and the brackets, bent from strips of metal to form the horizontal portion or seat D, the keeper E, the brace F, and the upright or connecting portion G, and having such portion G lapped against and secured to the standards of the main frame, substantially as set forth.

OTTO F. WEGENER.

Witnesses:
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CHAS. OTTO.