(No Model.)

L. M. HAM.

HANGER FOR SUSPENDING BEAMS.

No. 247,050. Patented Sept. 13, 1881.

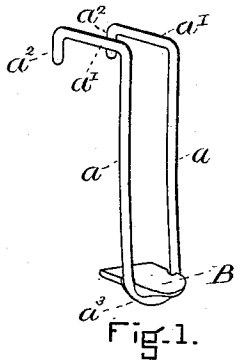
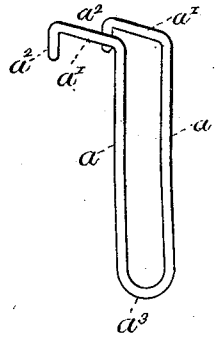


Fig. 1.



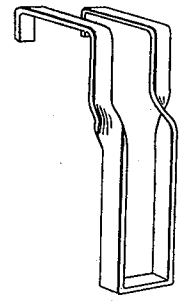


Fig. 3.



Fig. 2.

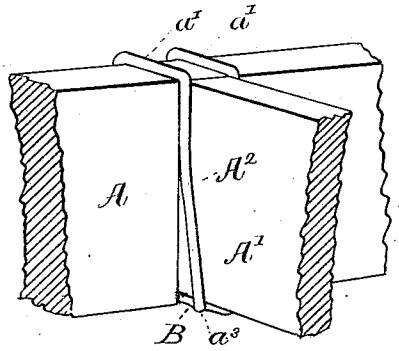


Fig. 4.

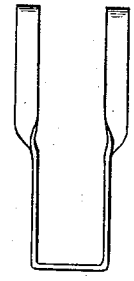


Fig. 8.

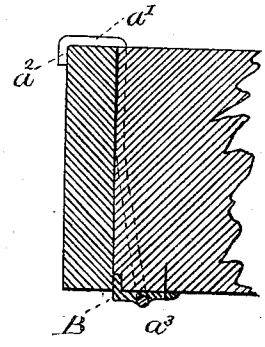


Fig. 5.

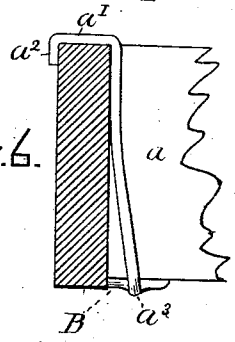


Fig. 6.



Fig. 7.

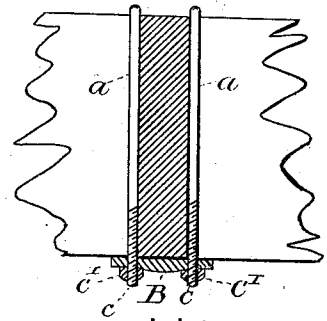


Fig. 7.

WITNESSES

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UNITED STATES PATENT OFFICE.

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HANGER FOR SUSPENDING BEAMS.

SPECIFICATION forming part of Letters Patent No. 247,050, dated September 13, 1881.

Application filed April 25, 1881. (No model.)

To all whom it may concern:

Be it known that I, LEMUEL M. HAM, of Boston, in the county of Suffolk and State of Massachusetts, a citizen of the United States, have invented a certain new and useful Improvement in Hangers for Suspending Beams, of which the following is a full, clear, and accurate description, reference being had to the accompanying drawings, forming a part of this specification in explaining its nature, in which—

Figure 1 is a perspective view of my improved hanger. Fig. 2 is also a view in perspective of the hanger, with the step detached and reversed. Fig. 3 is a perspective of the old form of hanger. Fig. 4 represents my hanger. Fig. 5 is a vertical section further illustrating the method of using my invention. Fig. 6 represents still another view of my invention, and Fig. 7 a modification, which will be hereinafter more fully described. Fig. 8 is a front elevation of the old form of hanger shown in Fig. 3. Fig. 9 is a perspective view of the shoe.

This invention has for its object the within-described hanger or stirrup for suspending beams, joists, &c.

Heretofore it has been common to make hangers for this purpose of flat iron, shaped substantially as shown in Fig. 3 and twisted at some point of its length, so that the under portion shall have its widest part in a horizontal plane, or substantially horizontal, and the upper portion, or that which rests upon the cross-beam or support, shall also have the widest portion in a horizontal plane. To accomplish this it is necessary that there be a twist in each arm of the hanger at some point between the lower and the upper ends. This construction of hanger is objectionable for two reasons: first, it is comparatively expensive, and, second, it cannot be used in its most perfect way without an additional bolt and nut or tie of some description for fastening the end of the suspended beam to the beam or support from which it is suspended. Without such a tie there is always a liability of the suspended beam drawing away from the supporting-beam or other support.

I overcome these objections by making my hanger or stirrup of round or square iron in the first instance, and by shaping it substantially as represented in the second instance, whereby the beam, when suspended thereon, is always drawn toward the sustaining beam or support and never tends to swing from it, thereby insuring a safe construction and avoiding the necessity of using an additional bolt and nut or other device for locking the abutting end of the suspended beam to the supporting-beam or other support.

I can practice my invention in any of the ways in which it is shown in the drawings; but whichever form is used it is desirable generally to employ a shoe having a long and wide bearing-surface between the bottom of the hanger and the supported beam, and upon which the beam shall rest, thereby providing a much greater bearing for the beam than is obtained by the flat iron hanger and preventing the round iron from sinking into the beam, as it otherwise might.

A represents the support or supporting-beam. A′ is the suspended beam, and A^2 the hanger or stirrup.

The hanger consists of the vertical arms *a* and a horizontal portion, *a′*, either with or without the ends a^2. The lower ends of the arms *a* are bent so as to be slightly inclined in relation to the vertical parts, substantially as shown, preferably at a point higher than midway of their length, so that when the hanger is in position upon the beam from which it is suspended the upper portion is vertical and the lower part is inclined away from the beam, the lower end being entirely removed from it. This construction causes the hanger to act to draw the suspended beam toward the supporting-beam with a continuous strain, thereby serving to lock the two beams together as well as in suspending one.

The hanger may be in one piece, as shown in Figs. 1, 2, 4, 5, and 6, in which case the lower connecting portion, a^3, supports the shoe B, which preferably is grooved upon its under surface and sides to fit that section; or the arms may have screw-threads *c* at their lower ends, substantially as shown in Fig. 7, in which case the shoe is fastened thereto by means of the ends *c′*, the ends of the arms extending through holes in the shoe, as represented.

This form of construction provides for the adjustment of the size of the hanger to beams of varying thicknesses, and is of considerable value for that purpose, as beams very often

vary from one-sixteenth to one thirty-second of an inch to an inch in thickness, and by moving the ends the shoe can be raised or lowered upon the arms, as the case may require.

I prefer to make the hanger of round iron; but of course iron of any other section may be used without departing from the spirit of my invention.

Of course, these hangers may be made double, one on each side of the beam, forming what is technically termed a "saddle," instead of a "stirrup," as the single hanger is called.

By making the step or sleeve as an angle-iron, as shown in Figs. 5 and 6, a somewhat firmer bearing is obtained, and if a countersunk hole (shown at *b*) be made, the shoe can be tacked to the joist before it is hoisted to place, and thus the work facilitated.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A metallic hanger having the arms *a* bent or curved from a vertical line, substantially as shown, and for the purposes described.

2. A metallic hanger consisting of the parallel arms *a*, the parallel horizontal extensions *a'*, and the shoe B, all substantially as described.

3. The combination, in a metallic hanger, of the parallel arms *a* and the parallel extensions, the shoe B, and means for adjusting the shoe vertically upon the arms *a*, all substantially as and for the purposes described.

4. As a means of suspending one beam or joist from another beam or other support, a metallic hanger having its lower portion bent outwardly from the supporting-beam or other support, substantially as and for the purposes set forth.

5. The shoe B, formed as an angle-iron at its rear end, substantially as described.

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Witnesses:

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