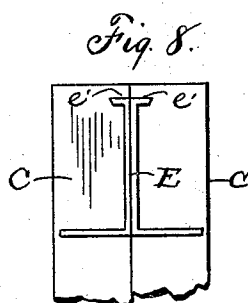
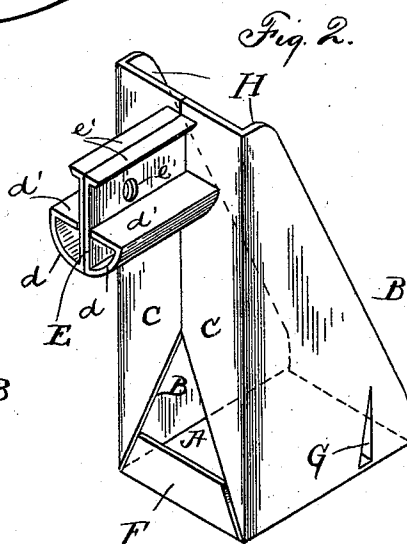
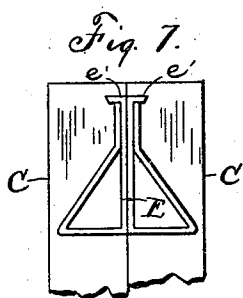
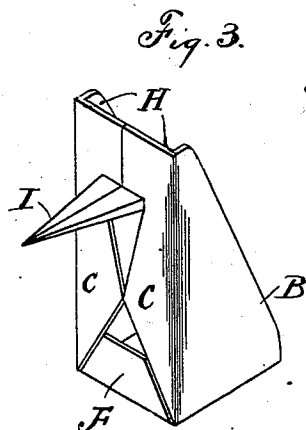
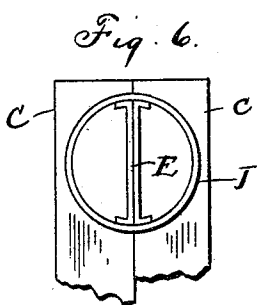
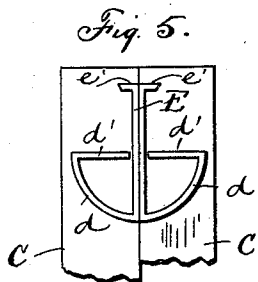
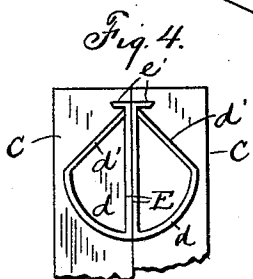
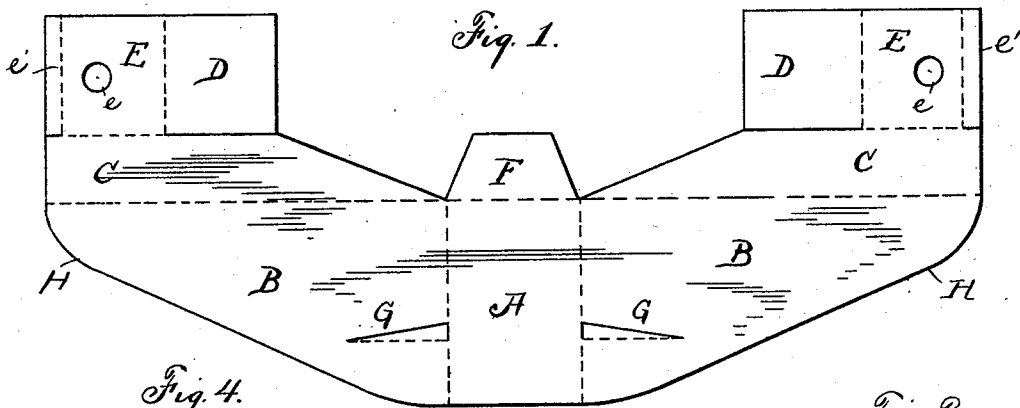


(No Model.)

I. J. LEHMAN.  
WROUGHT METAL HANGER FOR JOISTS.

No. 478,163.

Patented July 5, 1892.



Witnesses.

E. Byron Gilchrist  
*[Signature]*

Inventor.

Israel J. Lehman  
*[Signature]*  
attorney

# UNITED STATES PATENT OFFICE.

ISRAEL J. LEHMAN, OF CLEVELAND, OHIO.

## WROUGHT-METAL HANGER FOR JOISTS.

SPECIFICATION forming part of Letters Patent No. 478,163, dated July 5, 1892.

Application filed August 22, 1891. Serial No. 403,450. (No model.)

*To all whom it may concern:*

Be it known that I, ISRAEL J. LEHMAN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Wrought-Metal Hangers for Joists; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to an improved wrought-metal hanger for joists, the object being to reduce the weight and the initial cost of such hangers.

In the accompanying drawings, Figure 1 is a plan of a blank used in constructing the device, as shown in Fig. 2. Fig. 2 is a view in perspective of one form of hanger embodying my invention. Fig. 3 is a view in perspective of a hanger designed for light work. Figs. 4, 5, 6, 7, and 8 are rear elevations in detail, showing modifications of the supporting lug or member, according as the hanger is to be attached to woodwork, mason-work, &c. The metal employed in the construction of my improved hanger is of the wrought variety, preferably sheets of steel, these sheets for ordinary purposes being quite thin.

The blank shown in Fig. 1 is folded on the dotted lines thereof, section A forming the bottom, sections B B the sides, and C C the back. Sections D D are divided from sections C C, but are left united with sections E E, that in turn are left intact with sections C C. Members D D are bent to form the curved sections *d d*, the two members *d d* constituting, approximately, a semicircle. Sections *d' d'* are bent back against members E E to serve as braces. Holes *e* are provided in members E E, and the upper sections of the latter are flanged outward, as at *e' e'*. Member F is folded up at the rear, as shown, to form a part of the back wall of the hanger. An inverted-V-shaped section G is flanged inward to form a sharp-edged rib, commencing at zero at the top and increasing to perhaps a half inch (more or less) in width at the bottom, whereby if a joist is so thin that it does not fill the pocket laterally these ribs G will engage the joist and hold it in place laterally, and as the joist is driven down into the socket these ribs

will indent the wood, and thereby hold the joist endwise. If the bracket is to be attached to wood, a hole is bored to receive the supporting-lug, the hole being of such diameter that it will fit the curved sections *d d*, the hole of course being of sufficient depth to receive the lug. A small hole is bored from the center of the large hole through the timber for receiving a bolt, (not shown,) the hook end of the bolt engaging hole *e*, whereby the hanger is anchored to the supporting-timber. For light work, instead of the supporting-lug shown in Fig. 2, sections of the back are bent outward to form a pointed tapering nail, as shown in Fig. 3, and this nail can be driven into the wood.

Fig. 5 represents a rear end elevation of a lug, substantially the same as shown in Fig. 2.

Fig. 4 shows a slight modification of the lug, wherein members *d d'* extend upward and incline inward, so as to engage the top flange of the lug.

In Fig. 6 the end view of the lug is similar to the end view of an I-beam. This makes a strong lug, but as there is not sufficient surface for engaging the wood a piece of tubing J embraces the lug, this tube being supposed to fit the hole in the timber.

In Figs. 7 and 8 are shown suitable forms of lugs for setting in mason-work.

My improved hangers are extremely light as compared with the cast-iron hangers heretofore used for the purpose, and as the cost of cutting the blank by means of suitable dies and of shaping the blank by means of suitable formers is but trifling the hangers can be manufactured at a great reduction in initial cost.

What I claim is—

1. A hanger for joists, constructed of sheet metal and having a socket for receiving the joist and having a supporting-lug at the rear, the parts being integral, and the side walls of the socket being flanged inward to form ribs for engaging the joist laterally, substantially as set forth.

2. A hanger for joists, constructed of sheet metal, the same having a socket for receiving the joist and having a supporting-nail at the rear adapted to be driven into the wood, substantially as set forth.

3. A hanger for joists, constructed of sheet metal bent substantially as shown, with the parts integral, the hanger having a socket for receiving the joist and having a lug at the rear  
5 for attaching the hanger, and a hole in the walls of the lug for anchoring the hanger, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 5th day of May, 1891.

ISRAEL J. LEHMAN.

Witnesses:

C. H. DORER,  
WARD HOOVER.