

H. C. SEIPP.

JOIST HANGER.

APPLICATION FILED APR. 6, 1908.

924,842.

Patented June 15, 1909.

Fig. 1.

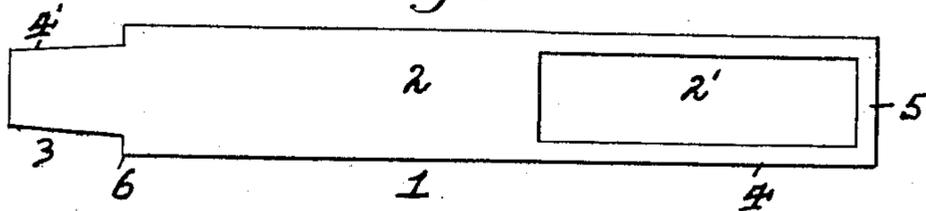


Fig. 2.

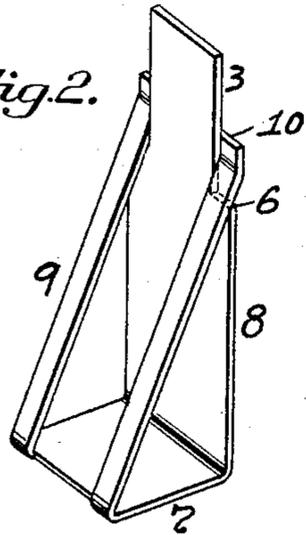


Fig. 3.

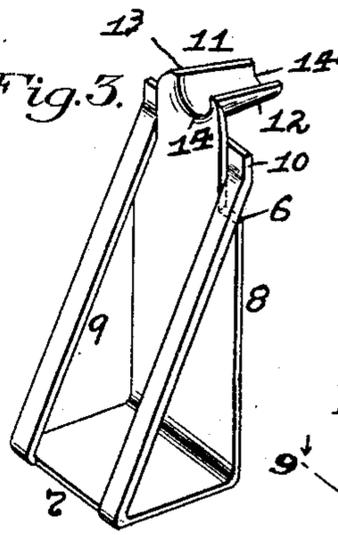


Fig. 8.

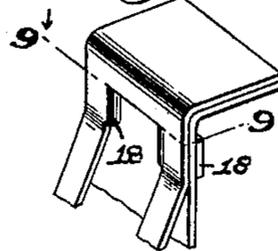


Fig. 4.

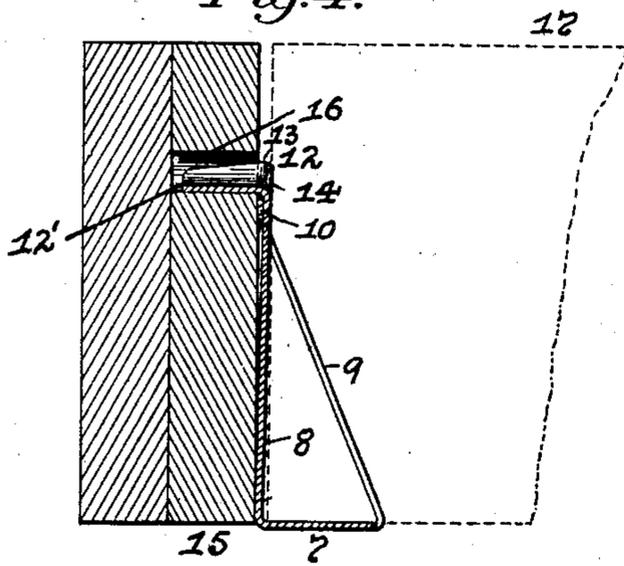


Fig. 5.

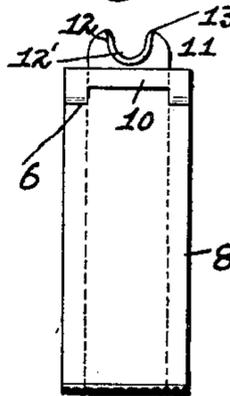


Fig. 9.

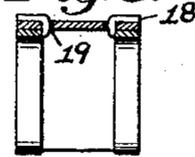


Fig. 6.

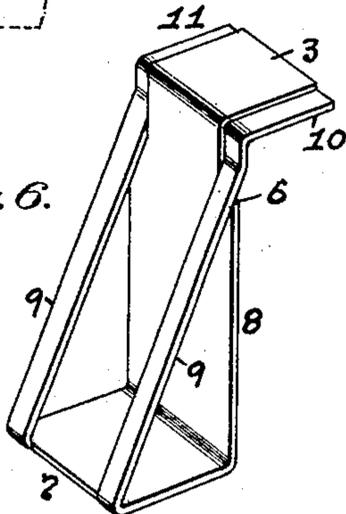
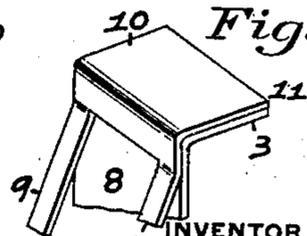


Fig. 7.



WITNESSES

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# UNITED STATES PATENT OFFICE.

HENRY C. SEIPP, OF CORAOPOLIS, PENNSYLVANIA.

## JOIST-HANGER.

No. 924,842.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed April 6, 1908. Serial No. 425,425.

*To all whom it may concern:*

Be it known that I, HENRY C. SEIPP, a resident of Coraopolis, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Joist-Hangers; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a joist hanger, and has special reference to a hanger of a class which is formed from a blank of sheet metal and cut and bent to shape.

The object of my invention is to form a cheap, simple and efficient joist hanger which can easily and quickly be formed from a blank of sheet metal and into shape by bending, as well as one which will tend to support itself under loads and strains, will not be liable to breakage, and will be stronger than the ordinary class of these hangers now in use.

To these ends my invention consists, generally stated, in the novel arrangement, construction and combination of parts, as hereinafter more specifically set forth and described and particularly pointed out in the claims.

To enable others skilled in the art to which my invention appertains, to construct and use my improved joist hanger, I will describe the same more fully, referring to the accompanying drawing, in which:—

Figure 1 is a plan view of the blank from which my improved joist hanger is formed. Fig. 2 is a perspective view of the hanger in its partially formed shape. Fig. 3 is a like view of the finished hanger. Fig. 4 is a vertical central section of the hanger showing the same applied in position. Fig. 5 is a rear view of the hanger. Fig. 6 is a perspective view showing another form of the anchoring portion of the hanger. Fig. 7 is a like view showing a portion of another form for supporting the carrying portion on the end of the hanger. Figs. 8 and 9 are detail views of another form for supporting the carrying portion on the body of the hanger.

Like symbols of reference herein indicate like parts in each of the figures of the drawing.

As illustrated in the drawing, 1 represents the blank for constructing the general form of the hanger, which is formed or cut to shape from a rectangular piece of sheet metal, and has a body portion 2 and lug portion 3, such body being provided with the

opening 2' within the same for forming the arm portions 4 on each side of the same and cross-portion 5 at one end of the same, while the lug portion is formed at the other or opposite end of the blank 1 and has inwardly tapered sides 4' extending from shoulders 6 formed on each side of the body 2 of said blank. After the blank 1 has been thus formed the body 2 is bent outwardly at a right angle to form the lower horizontal portion 7 and the vertical body portion 8 of the hanger, then the arm portions 4 and cross-portion 5 are bent upwardly and inwardly at an angle toward said vertical portion to form the inclined arms 9 and the cross-portion 5 is bent upwardly in a vertical line with the vertical portion 8 and forms the upper horizontal cross-portion 10. After this is accomplished the vertical body portion 8 carrying the lug portion 3 is bent in any suitable manner and said lug portion is then passed through and between the arms 9, so that said portions can again be bent in any suitable manner to allow the body portion 8 to again assume its vertical position and the said lug portion a like position in front of the cross-portion 10, as well as permitting the shoulders 6 to come under and engage the upper ends of said arms, and thereby enable the blank or joist supporting portion of said hanger composed of the horizontal portion 7 and the arms 9 to be supported by the upper end of the hanger.

The lug portion 3 is adapted to be bent at right angles to the vertical body portion 8 to form the supporting portion 11 of the hanger, and if desired it can be bent in any suitable manner into U-shape such as is shown and described in United States Letters Patent granted to me on August 21, 1906, No. 829,234, which consists of a semi-circular or gutter supporting portion 12 provided with the open outer top 13 and open ends 14.

When formed as above described the hanger has a carrying portion connected to its body portion and in such a shape the hanger is applied to a beam or joist 15, as shown in Fig. 4 by having a hole 16 formed within such beam or joist just above the neutral axis of the same, and within said hole the gutter supporting portion 12 on the hanger is placed, so that such a hanger is anchored and hung thereby from said beam or joist. After the hanger is thus in position the cross-beam or joist 17, shown in dotted lines in Fig. 4, is placed within the hanger so

that its end rests upon the horizontal portion 7 and between the arms 9 so as to be supported and carried thereby, while any possible side movement of said beam or joist will be prevented by the arms 9. When the hanger is thus in position and supporting the beam or joist 17, it will be evident that any bending or other strain upon the hanger it will be firmly supported by its supporting portion 12 and by the arms 9 engaging with the shoulders 6 on the vertical portion 8 of the hanger.

If desired, the hole 16 can be extended through the beam or joist 15 and a screw-bolt placed within said hole and grooved seat 12' in the U-shaped end 12 of the hanger, so that said end can be firmly and securely held in said hole to support the hanger in place, while the beam or joist supporting portion of the hanger is supported by the upper end of said hanger. It will also be obvious that the lug portion 3 can be bent down to a flat right angled supporting portion 11 with the cross-portion 10 which is extended and bent at a right angle under said portion 3, as shown in Fig. 6, in which case, the said doubled supporting portion can be placed over the top of the beam or joist 15 and secured thereto by nails, spikes, screws or other forms of attachment, as desired.

In Fig. 7 is shown another manner of supporting the beam or joist supporting portion at the upper end of the hanger, which consists in reversing such end construction, as shown in Fig. 6, and allowing the cross portion 10 to be placed in front of the body portion 8, so that the said portion 10 can be bent over the top of and against the bent right angled lug portion 3 on said portion 8 in forming the doubled supporting portion 11.

In Figs. 8 and 9, the carrying portion of the hanger can be connected to the main or vertical portion of the same by lugs or ears 18 which are formed on the arms 9 and passed through slits 19 in said vertical portion, so that they can be bent against the rear face of said portion and thus support said carrying portion in place. It will also be obvious that the gutter shaped form and other forms can be applied to the right angled anchoring portion of the hanger, shown in Figs. 6, 7 and 8, while various other modifications and changes in the design and construction of my improved joist hanger may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

It will thus be seen that my improved joist hanger can be made by hand or machine and when in use will form a firm and substantial support for the beam or joist. It will not be liable to slip from or out of the beam or joist holding the same, and any bending or other strains upon the beam or joist supporting portion of the hanger will be prevented

by the supporting of said portion on the upper end of the hanger, as well as overcoming any possible distortion of said supporting portion when holding beam or joist in position thereon. It will also be seen that the hanger is formed from a continuous piece of sheet metal and such a form of hanger will enable it to be used on different heights of beams and joists.

What I claim as my invention, and desire to secure by Letters Patent, is:—

1. As a new article of manufacture, a hanger having a vertical body portion, an anchoring portion at the upper end of said body portion, and a carrying portion bent at a right angle from the lower end of said body portion and having arms thereon bent up at an angle toward said body portion for being supported thereby.

2. As a new article of manufacture, a hanger having a vertical body portion, an anchoring portion at the upper end of said body portion, and a carrying portion bent out at an angle from the lower end of said body portion and having arms thereon bent up at an angle toward said body portion for being supported by the rear of said body portion.

3. As a new article of manufacture, a hanger having a vertical body portion, an anchoring portion at the upper end of said body portion, and a carrying portion bent at a right angle from the lower end of said body portion and having arms thereon bent up at an angle toward said body portion for being supported thereby.

4. As a new article of manufacture, a hanger having a vertical body portion, an anchoring portion at the upper end of said body portion, and a carrying portion bent out from the opposite end of said body portion and having arms thereon bent up at an angle toward the upper end of said body portion and supported by said body portion.

5. As a new article of manufacture, a hanger having a vertical body portion, an anchoring portion at the upper end of said body, and a carrying portion bent at a right angle from the lower end of said body portion and having arms thereon bent up at an angle toward the upper end of said body portion and supported by said upper end.

6. As a new article of manufacture, a hanger having a vertical body portion, an anchoring portion at the upper end of said body, and a carrying portion bent at a right angle from the lower end of said body portion and having arms thereon bent up at an angle toward the upper end of said body portion, and a portion on said arms for being supported by said body portion.

7. As a new article of manufacture, a hanger having a vertical body portion, an anchoring portion at the upper end of said body, and a carrying portion bent at a right angle from the lower end of said body por-

tion and having arms thereon bent at an angle toward the upper end of said body portion, and a portion on said arms for being supported by said upper end.

5 8. As a new article of manufacture, a hanger having a body portion, an anchoring portion at the upper end of said body and extending toward the rear of the same, and a carrying portion bent out from the oppo-  
10 site end of said body portion and having arms thereon extending toward said body portion, said arms being supported by said body portion and being connected around the rear of said body portion.

15 9. As a new article of manufacture, a hanger having a body portion, an anchoring portion at the upper end of said body portion and extending toward the rear of the same, and a carrying portion bent out from  
20 the opposite end of said body portion and having arms thereon extending toward said body portion, said arms being supported by said body portion, and having a portion thereon extending around the rear of said  
25 body portion for connecting the same thereto.

10. As a new article of manufacture, a hanger having a vertical body portion provided with shoulders thereon, an anchoring  
30 portion at the upper end of said body portion, and a carrying portion bent at a right angle from the lower end and having arms thereon bent up at an angle toward said body portion for engaging with said shoul-  
35 ders to support said carrying portion.

11. As a new article of manufacture, a hanger having a vertical body portion provided with shoulders thereon, an anchoring  
40 portion at the upper end of said body portion, and a carrying portion bent at a right

angle from the lower end of said body portion and having arms thereon bent up at an angle toward said body portion for engaging with said shoulders and the rear of said body portion to support said carrying portion. 45

12. As a new article of manufacture, a hanger having a vertical body portion provided with shoulders thereon, an anchoring portion at the upper end of said body portion, a carrying portion bent out from the  
50 opposite end of said body portion and having arms thereon extending toward said body portion for engaging with said shoulders to support said carrying portion, and a portion on said arms and engaging with the rear of  
55 said body portion for connecting the same thereto.

13. As a new article of manufacture, a hanger having a vertical body portion provided with shoulders thereon, an anchoring  
60 portion at the upper end of said body portion, a carrying portion bent out from the opposite end of said body portion and having arms thereon extending toward said body portion for engaging with said shoul-  
65 ders to support said carrying portion, and a cross-portion between said arms and fitting against the rear of said body portion for connecting the same thereto.

14. As a new article of manufacture, a  
70 hanger having a body portion and carrying arms, and an anchoring portion at the upper end of said body portion formed of the overlapping ends on said body and arms.

In testimony whereof, I, the said HENRY  
75 C. SEIPP, have hereunto set my hand.

HENRY C. SEIPP.

Witnesses:

JAMES L. WEHN,

J. N. COOKE.