

No. 717,316.

Patented Dec. 30, 1902.

H. W. AVERY.

JOIST HANGER.

(Application filed May 10, 1902.)

(No Model.)

Fig. 1,

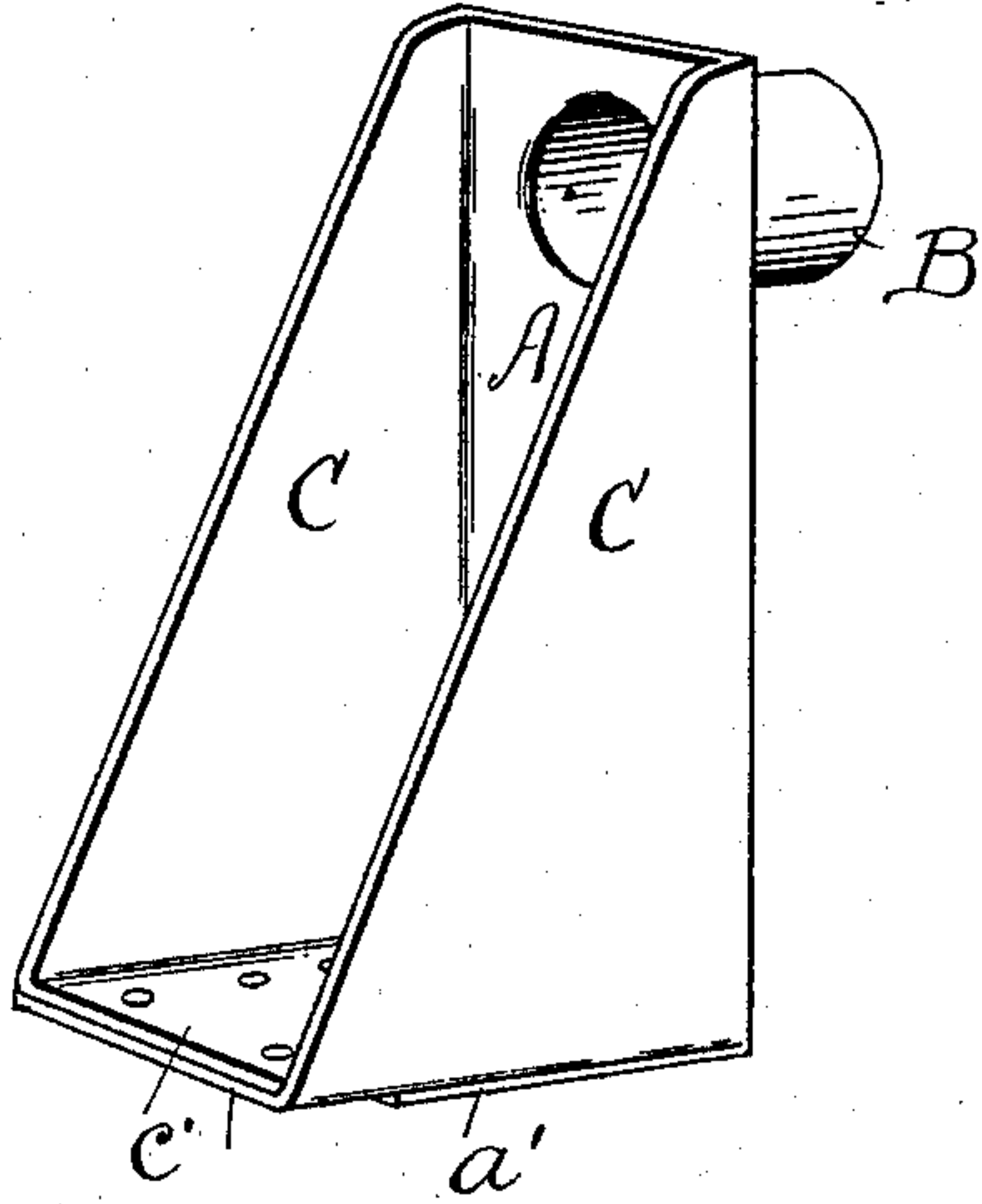


Fig. 3,

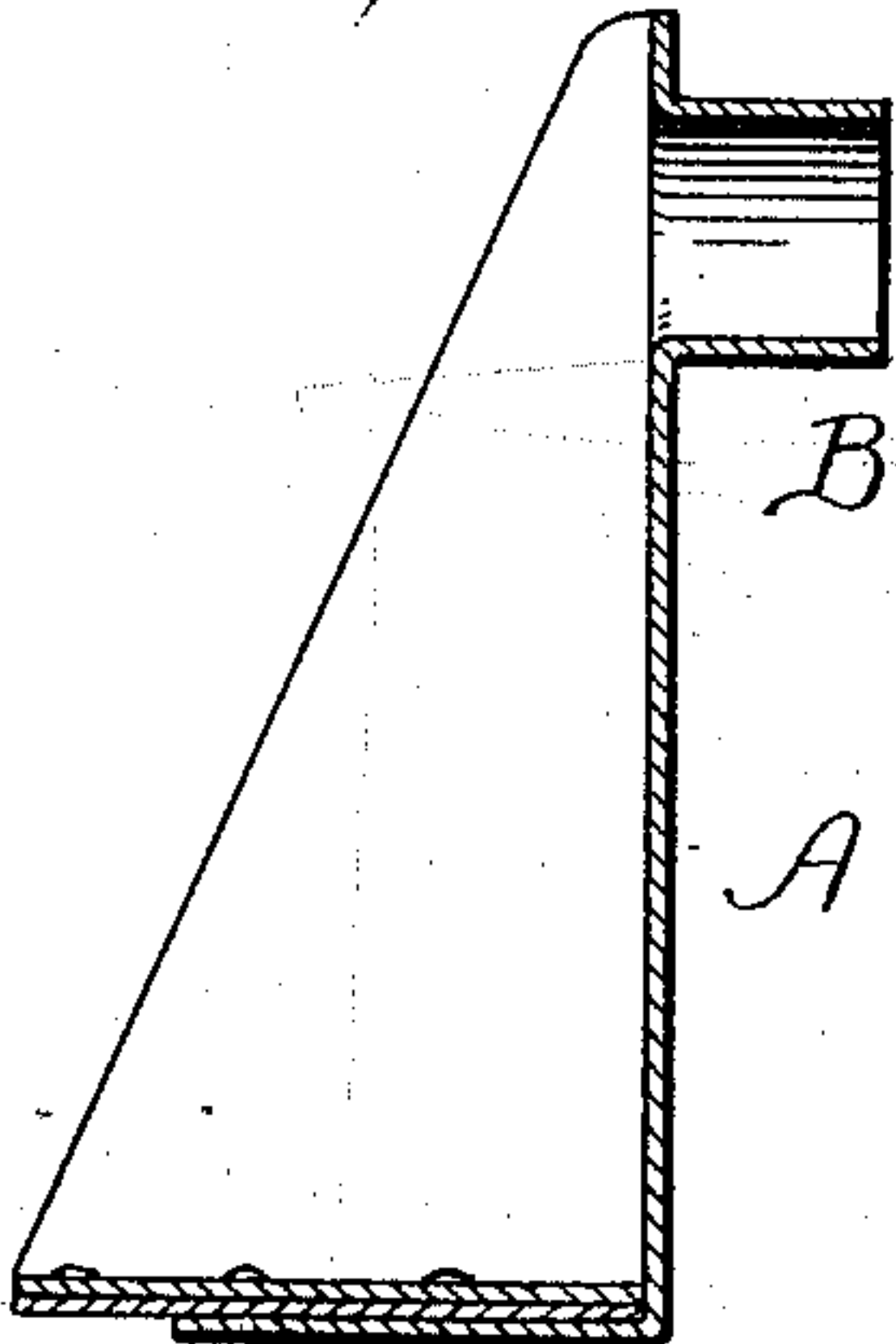


Fig. 4,

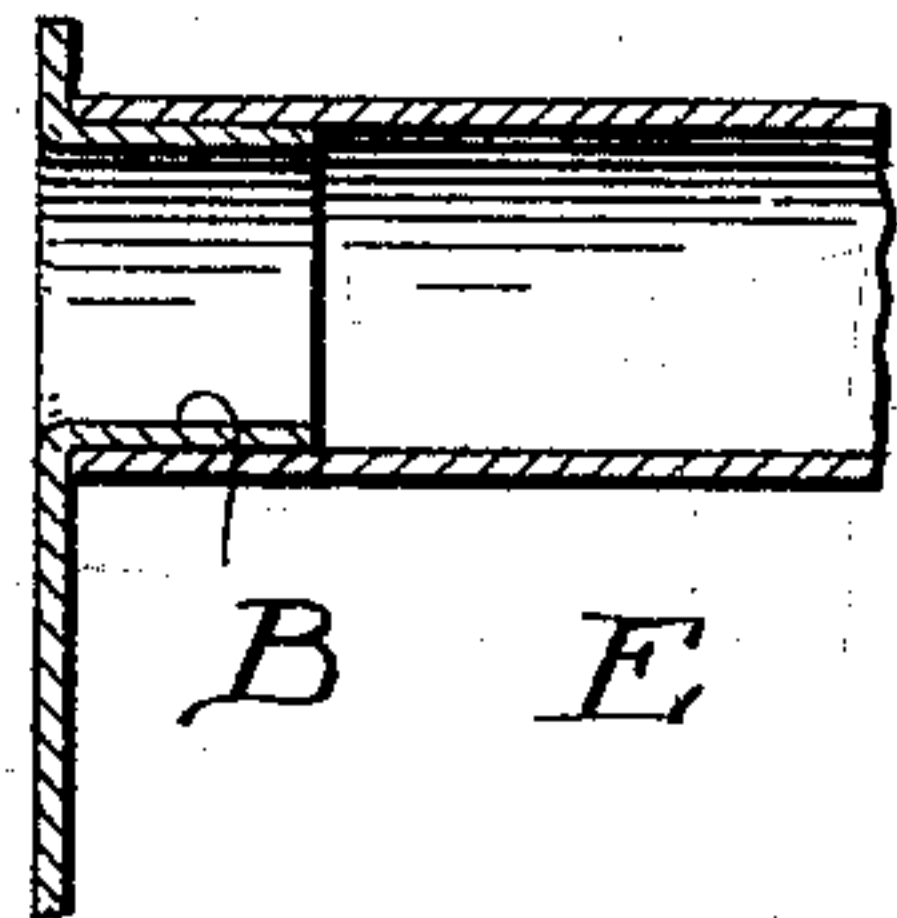
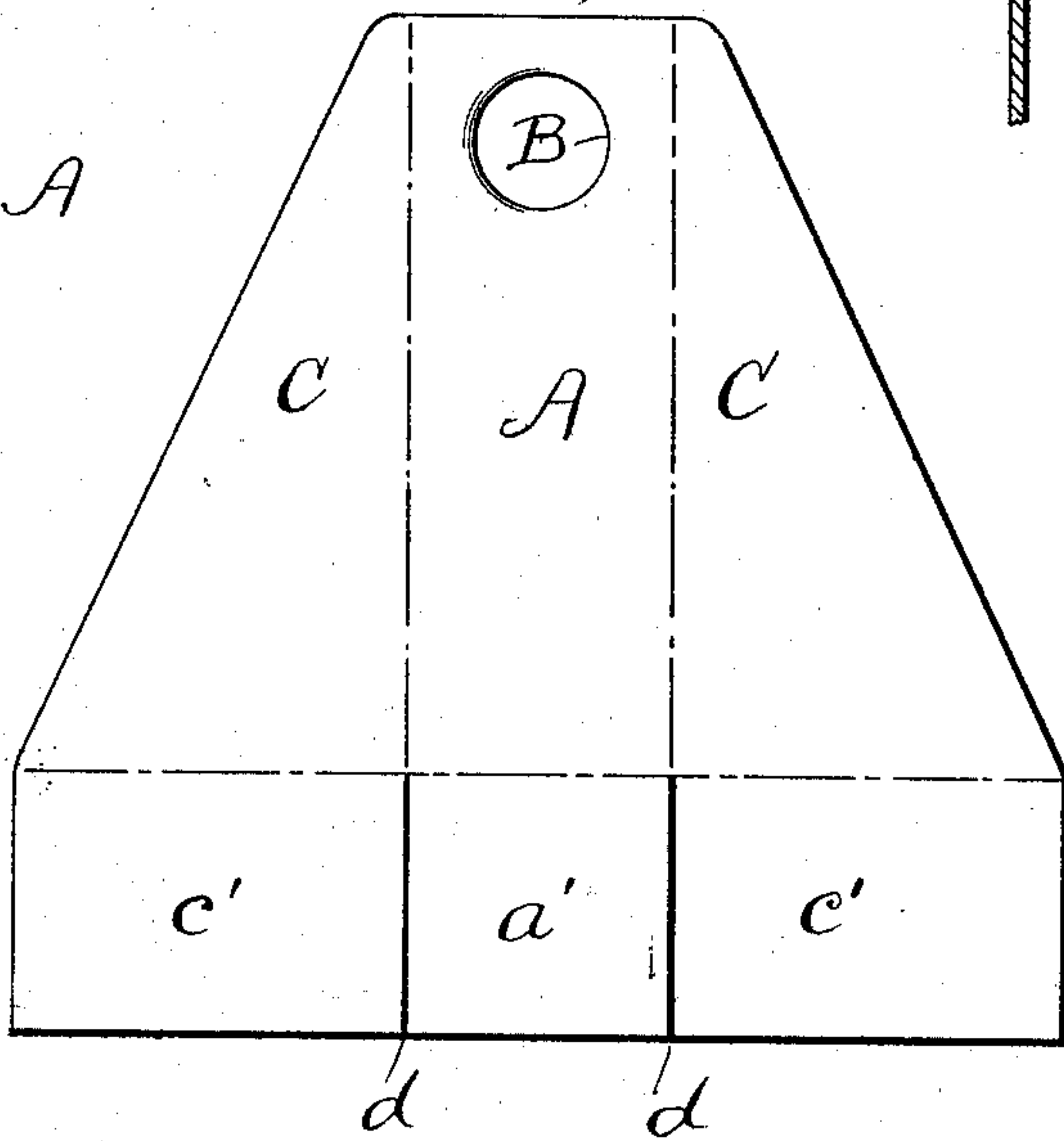


Fig. 2,



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY W. AVERY, OF CLEVELAND, OHIO, ASSIGNOR TO THE AVERY STAMPING COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

JOIST-HANGER.

SPECIFICATION forming part of Letters Patent No. 717,316, dated December 30, 1902.

Application filed May 10, 1902. Serial No. 106,681. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. AVERY, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Joist-Hangers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

10 The object of the invention is to provide a light, strong, and serviceable wrought-metal joist-hanger; and the invention consists in a joist-hanger made of wrought sheet metal and consisting of a vertical back plate provided
15 with an integral rearwardly-projecting tubular boss near its upper end, two substantially triangular vertical side pieces integral with and lying at right angles to the back plate, and a triple thick horizontal bottom plate
20 formed by bending the lower ends of the back plate and sides into horizontal position and overlapping them and riveting them together.

It also consists in the joist-hanger described, combined with a tube embracing and rigidly
25 connected with said tubular boss.

In the drawings, Figure 1 is a perspective view of a joist-hanger embodying my invention. Fig. 2 is a plan view of the blank from which the joist-hanger is constructed after
30 the tubular boss has been formed thereon. Fig. 3 is a central vertical section of the completed hanger, and Fig. 4 is a vertical sectional view of the upper end of the back plate when the rearwardly-projecting tubular boss
35 is embraced by and secured to a reinforcing-tube.

This joist-hanger is composed of a vertical back plate A, having a rearwardly-projecting integral tubular boss B, drawn into the shape
40 shown by suitable dies.

C C represent substantially triangular vertical sides, which are integral with and lie at right angles to the back plate. The bottom or supporting shelf of the joist-hanger is
45 formed by bending the lower ends *c' c'* of the two sides and the lower end *a'* of the back plate (which are separated when the blank is flat by the slots *d*) into horizontal positions

and overlapping them and then riveting them together.

The described joist-hanger is, it is believed, very much stronger than a cast-iron joist-hanger of the same weight.

In using these joist-hangers the tubular boss is inserted in a hole in the header. The tubular boss, which may be formed in the
55 manner described, is not very long, and there is, perhaps, some likelihood that if not reinforced it might withdraw itself from said hole. To prevent this action, a reinforcing-
60 tube E, as shown in Fig. 4, is shrunk upon this tubular boss, and this reinforcing-tube may be of any desired length.

Having described my invention, I claim—

1. A wrought-metal joist-hanger consisting
65 of a vertical back plate having near its upper end a rearwardly-projecting integral tubular boss, two substantially triangular side pieces which are integral with the back plate and lie at right angles thereto, and a triple thick
70 horizontal bottom shelf formed by bending the lower ends of the back plate and sides into horizontal position, the ends of the sides overlapping each other and both overlapping the back plate, all such overlapped parts be-
75 ing secured together, substantially as described.

2. A wrought-metal joist-hanger consisting of a vertical back plate having near its upper end a rearwardly-projecting integral tubular
80 boss, two substantially triangular side pieces which are integral with the back plate and lie at right angles thereto, and a triple thick horizontal bottom shelf formed by bending the lower ends of the back plate and sides
85 into horizontal position, and overlapping them, and riveting them together, combined with a reinforcing-tube which embraces and is secured onto said tubular boss, substantially as specified.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

HENRY W. AVERY.

Witnesses:

E. B. GILCHRIST,
H. M. WISE.