No. 611,796.

Patented Oct. 4, 1898

## L. L. SAGENDORPH.

## MEANS FOR SECURING FURRING STRIPS TO METALLIC BEAMS.

(Application filed Oct. 7, 1897.

(No Model.)

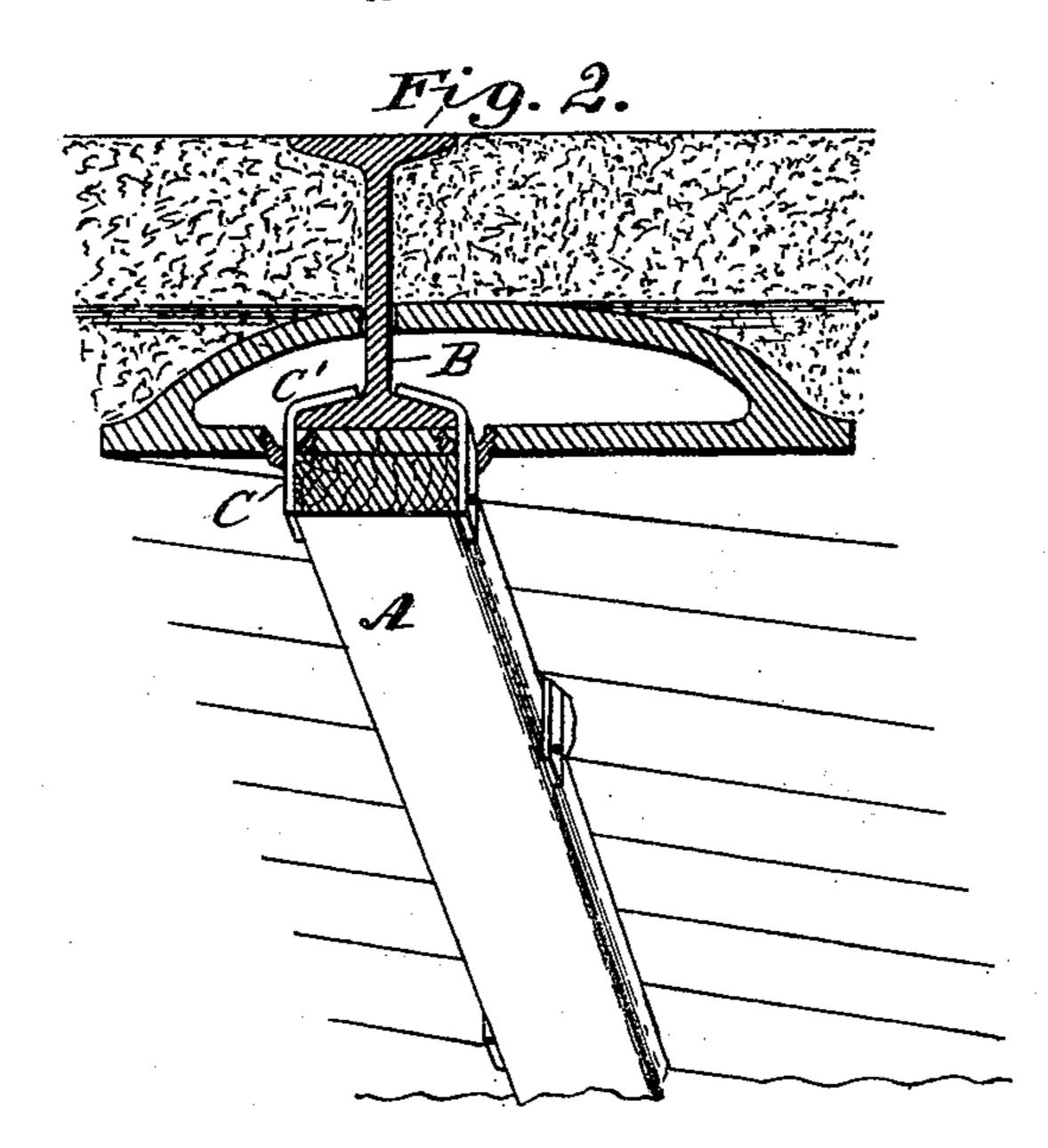


Fig. 1.

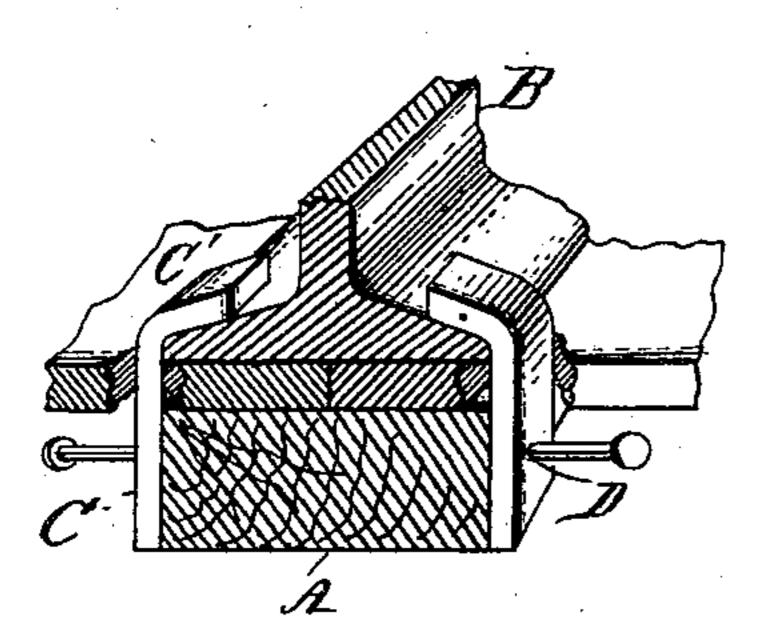
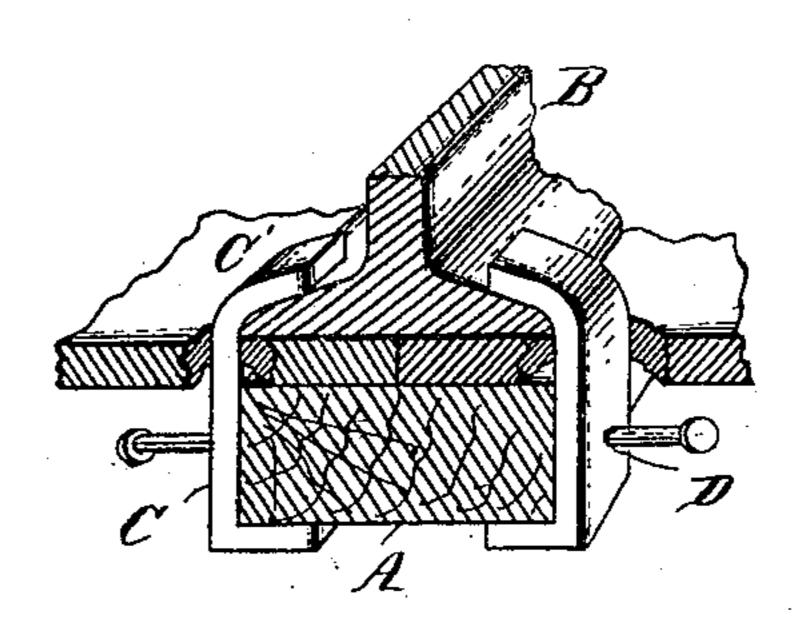


Fig. 3.



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## United States Patent Office.

LONGLEY LEWIS SAGENDORPH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO CHARLES N. HARDER, OF PHILMONT, NEW YORK.

MEANS FOR SECURING FURRING-STRIPS TO METALLIC BEAMS.

SPECIFICATION forming part of Letters Patent No. 611,796, dated October 4, 1898.

Application filed October 7, 1897. Serial No. 654,398. (No model.)

To all whom it may concern:

Beit known that I, Longley Lewis Sagen-Dorph, a citizen of the United States, residing at Philadelphia, in the county of Phila-5 delphia and State of Pennsylvania, have invented certain new and useful Improvements in Means for Securing Furring-Strips to Metallic Beams; 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 appertains to make and use the same.

This invention has relation to means for securing ornamental metallic plates or panels to the ceilings of fireproof structures wherein the framework of the ceiling is composed of iron or steel flange-beams filled in with terra-cotta or brickwork, and has for its object the provision of novel devices for securing to said metallic beams timbers for the purpose of supporting the furring-strips to which the metallic plates or panels are applied and secured.

This invention consists in the construction and novel application of metallic cleats, which being attached to the lower flanges of the metallic beams and secured to the timbers will effectually support the latter and render them adequate means for the attachment of the furring-strips.

In the accompanying drawings, Figure 1 is a perspective view, partially in section, representing the cleat and other features of my invention applied to an iron I-beam and supporting the furring-timber. Fig. 2 is a perspective view showing the furring-strips applied to their supporting-timbers and the cleats in position on the I-beams. Fig. 3 is a perspective view of a modified form of cleat.

A designates the wooden beam or timber to which the furring-strips are nailed.

B designates the metallic I-beams of a ceiling, and C C' the parts of the cleat. The cleat consists of a flat bar or strip of metal bent or folded at an obtuse angle between its ends, so that its upper portion C' may rest on the inclined surface of the lower flange on one side of the I-beam, while its lower portion is

vertical and adapted to fit snugly against the edge of a board or timber E of the width of 50 the flange portion of the I-beam. The cleat is pierced at D for the insertion of a nail or spike to fasten it to the board or timber A. In applying the cleat to the metallic beam the concrete, terra-cotta, or other filling be- 55 tween the beams is chipped out above the lower flanges of the beam and the bent-over upper portion of the cleat inserted in the space so formed, so that it will rest upon the flange. In the practical use of these cleats I 60 attach two cleats to each of the wooden beams or timbers at or near each end of the timber, and at different points along the timber I attach one cleat on one side of the timber and another cleat alternately to the other side, as 65 shown in Fig. 2 of the drawings, and thus distribute the points of support. The wooden beams are secured to the cleats in the manner shown in the drawings—that is, by driving a nail through the nail-hole in the verti- 70 cal limb of each cleat into the wooden beam or timber. As many wooden beams as are required are used. When the wooden beams are in position on the ceiling, furring-strips are attached thereto in the usual way, and 75 the ceiling-plates are then secured to the furring-strips. If desired, the depending limb of the cleat may be bent inwardly at its end to pass under the timber, as shown in Fig. 3.

Having described my invention, I claim as 80 new and desire to secure by Letters Patent—

The combination with a flanged metallic ceiling-beam, and a timber for the attachment of furring-strips, arranged below and lengthwise of said beam, of a cleat to support said 85 timber, consisting of a strip or bar of flat metal, bent flatwise to an obtuse angle, one limb resting flatwise upon the beam-flange and the other depending and attached to the timber, substantially as described.

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

LONGLEY LEWIS SAGENDORPH.

Witnesses:

SAMUEL D. HOGNES, HERBERT S. ENGLE.