

(No Model.)

W. KENNISH.
PROTECTOR FOR THE ENDS OF BEAMS.

No. 462,357.

Patented Nov. 3, 1891.

Fig. 1.

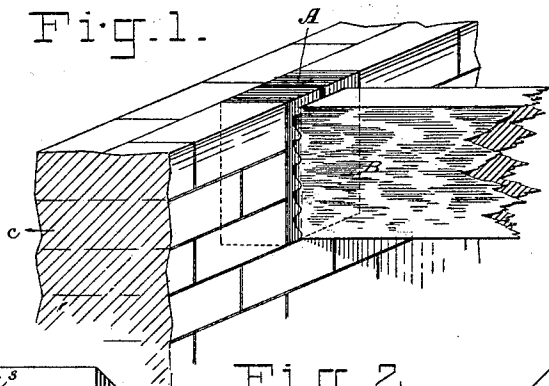
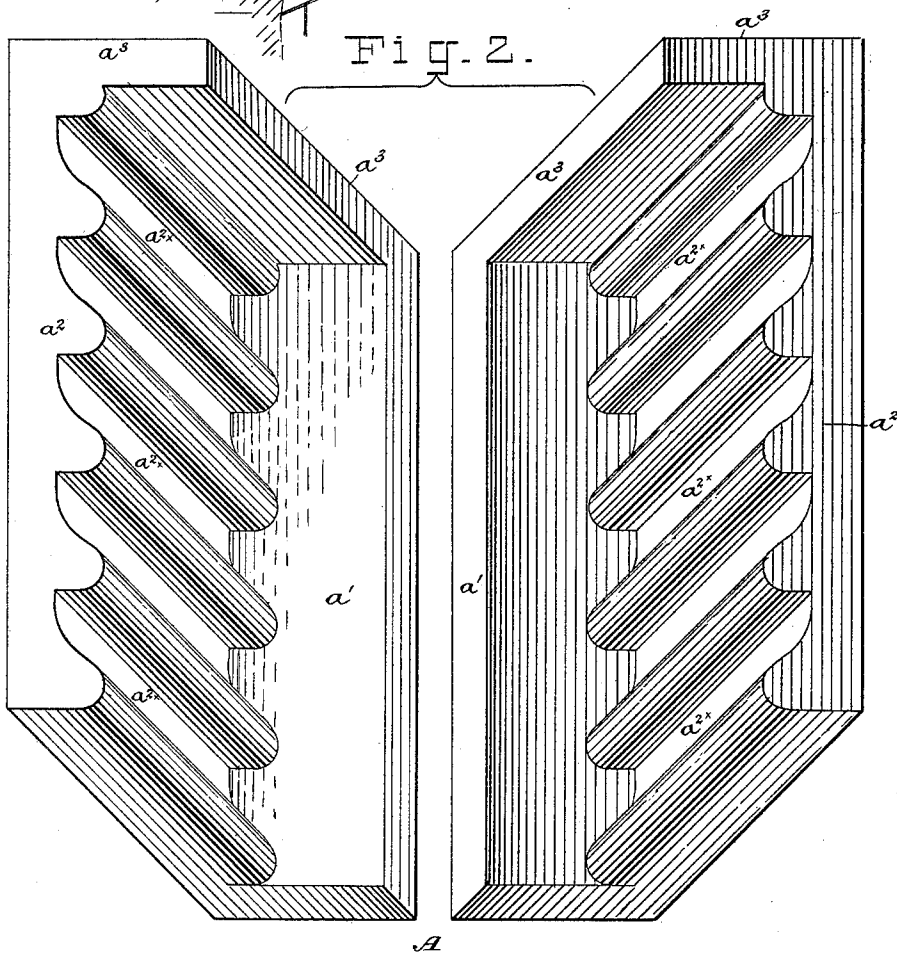


Fig. 2.



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PROTECTOR FOR THE ENDS OF BEAMS.

SPECIFICATION forming part of Letters Patent No. 462,357, dated November 3, 1891.

Application filed June 2, 1890. Renewed September 15, 1891. Serial No. 405,741. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM KENNISH, a citizen of the United States, residing at Brooklyn, Kings county, New York, have invented certain Improvements in Protectors for the Ends of Beams, &c., of which the following is a specification.

My invention relates to that class of devices employed in buildings and other like structures for incasing the ends of beams set in the walls or masonry thereof in order to protect said ends from deterioration and decay from the moisture of the masonry, as well as from the attacks of insects and the like.

The object of my invention is, in part, to provide a protector of this general character wherein sufficient space shall be provided about the end of the beam to afford free access of the air, in part to provide a protector which shall be applicable to beams of varying cross-section within limits, and in part to provide a protector which shall hold the beam firmly in place when once set about the end thereof.

In the accompanying drawings, which serve to illustrate my invention, Figure 1 is a perspective view, on a reduced scale, of a beam provided with my protector, set in the wall of a building. Fig. 2 is a perspective view, on a larger scale, illustrating the two like parts or sections of my protector.

In the drawings, A represents my improved protector as a whole, B the beam, and C the masonry of the wall.

a a represent the two sections or halves of my improved protector, which are or may be substantially like and equal. Hence a description of one section will suffice for both. The section a consists of a back or base a' , from which project, on two adjacent sides or edges, the side flange a^2 and the top or cover flange a^3 . The side flange a^2 is provided on its inner face with raised transverse ledges or serrations a^{2x} , which extend over its entire inner surface.

In applying my improved protector to the ends of beams in buildings the masonry or brick-work is laid up to the level of the tier at which the beam is to be set and the beam is then placed. When properly placed and set on the last tier of brick, the two sections of my protector are applied over the end of

the beam and the brick is laid on either side thereof, as usual, care being taken to press the sections well together, in order to hold the beam firmly.

A beam provided with my improved protector will, as may be readily seen, greatly outlast one set in the usual manner, especially where there is much moisture in the wall; and in order to more fully protect the beam against such moisture it may be desirable in some cases to spread the last tier of brick below the beam and to fill up the space between the sections of the protector with cement.

As will be readily observed, my protector, being preferably constructed of concrete, burned clay, or other such material, may be applied to beams of varying dimensions. Where the beam is too thick, the space between the sections is filled with cement and where the beam is too narrow the flanges of the sections are broken away to fit.

The ledges or serrations a^{2x} serve two useful purposes. They hold the beam when set firmly in position away from the side flanges a^2 , thus allowing free access of air about the sides of the beam end for purposes of ventilation. These ledges may of course be provided on the cover-flange a^3 and base a' , as well as on the side flange; but this is not usually necessary.

My protector has certain important characteristics, namely: Its sections are plain or unprovided with any curved lips on their faces for securing them together when applied, and they are disconnected, so that they can be set at any distance apart that may be required to adapt them to the thickness of the beam to be protected. The planes of the faces of the sections adjacent to the dividing-line between them are perpendicular to the base of the protector, or substantially so, and each section is provided with a cover-flange to take over the top of the beam.

In manufacturing my improved protector I prefer to so proportion it as to replace some certain number of brick, both as regards its width, thickness, and height; but this is not essential, as the spaces remaining after the protector is set in place may, as stated before, be filled with cement or ordinary mortar; nor is it essential to my invention that my

protector shall be formed from concrete or burned clay. It may be of metal in some cases, although the moisture of the wall would necessarily corrode iron and therefore deteriorate the end of the beam. For general use, where the beams are of varying cross-sections, I prefer to form it of concrete.

Having thus described my invention, I claim—

- 10 1. As an improved article of manufacture, a protector for the end of a beam or joist, consisting of two plain sections or halves, each having a cover-flange a^3 to take over the top of the beam when the protector is in place.
- 15 2. As an improved article of manufacture, a sectional protector for the end of a beam or joist, having back, side, and top flanges only, whereby the protector may be applied after the beam has been placed and set.
- 20 3. As an improved article of manufacture,

a protector for the end of a beam or joist, consisting of two sections or halves, each having back, side, and top flanges, the planes of the faces adjacent to the dividing-line between them being substantially perpendicular to the base of the protector. 25

4. As an improved article of manufacture, a sectional protector for the end of a beam or joist, consisting of two like sections having back, side, and top flanges only, and provided with integral ribs a^{2*} on its side flanges, said ribs having convex or rounded surfaces, substantially as set forth. 30

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses. 35

WILLIAM KENNISH.

Witnesses:

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J. D. CAPLINGER.