(No Model.)

E. GRINNELL.

BEAM END AND PROTECTOR.

No. 456,950. Patented Aug. 4, 1891.

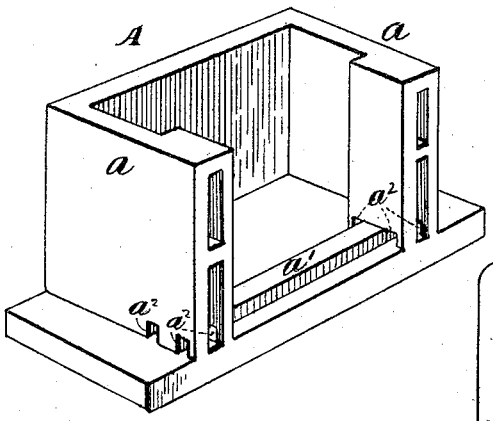
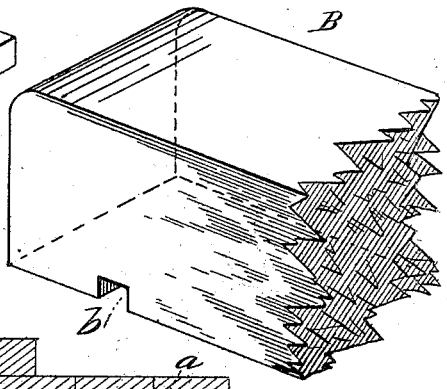


Fig. 1.



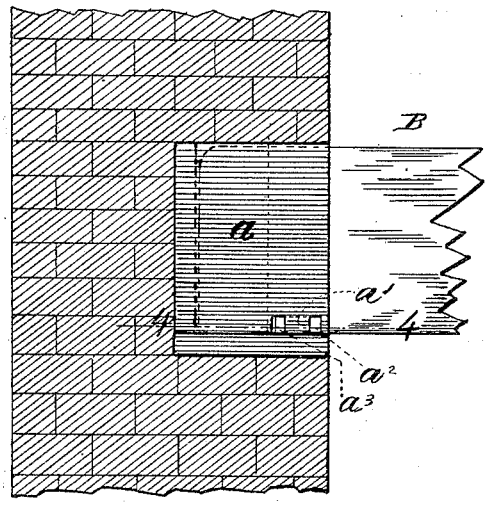


Fig. 2.

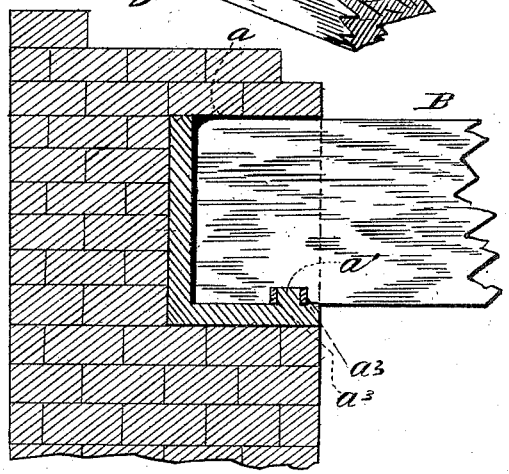


Fig. 3.

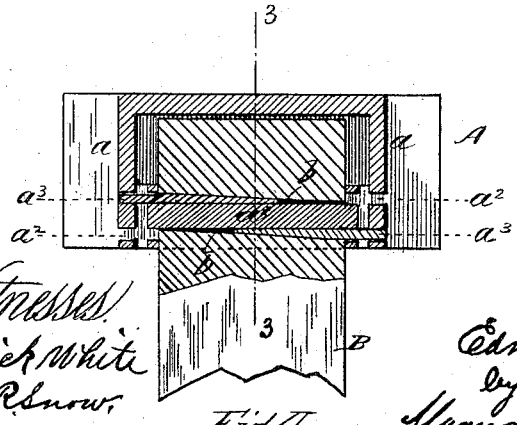


Fig. 4.

Witnesses.
Frederick White
John R. Snow.

Inventor.
Edmund Grinnell
by his attorneys.
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UNITED STATES PATENT OFFICE.

EDMUND GRINNELL, OF NEW BEDFORD, MASSACHUSETTS.

BEAM END AND PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 456,950, dated August 4, 1891.

Application filed February 11, 1891. Serial No. 381,094. (No model.)

To all whom it may concern:

Be it known that I, EDMUND GRINNELL, of New Bedford, in the county of Bristol and State of Massachusetts, have invented an Improved Beam End and Protector, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view illustrating one form of my protector and the detached end of a beam of wood. Fig. 2 is a side elevation showing the beam in place; Fig. 3, a section thereof; Fig. 4, an inverted sectional plan illustrating the best application of the wedges.

In Letters Patent Nos. 386,976 and 387,004, dated July 31, 1888, beam-end protectors are fully described, and my invention relates to articles of this class. As heretofore constructed the notches near each end of the beam, each notch designed to interlock with a lug across the bottom of the protector or holder, required to be at a precise distance apart for the best results, and in practice it was found impossible to measure with that very high degree of accuracy necessary to make each notch fit closely on its lug, as will be plain without further description; but it is nevertheless highly desirable that the holders or protectors shall fit the ends of the beam in such a way that neither can move with relation to the others; and my invention consists in a practical, efficient, and simple means for accomplishing this, which I will now describe by reference to the drawings.

The protector or holder A is made generally, as heretofore, in any of the numerous styles and sizes now on the market, with side walls a a and with a lug a' across the bottom to receive the notch b in the beam B; but in my improved protector the side walls are formed with orifices a^2 near the ends of the lug a', through which the wedges a^3 can be driven, thus connecting the beam and holders rigidly and making all three much as if in one piece.

For the best results I make the notch b slightly diagonal, as shown in Fig. 4, and use wedges a^3 at both sides of the lug a', as this gives an adjustment of the minutest accuracy with no more than ordinary care in measuring the distance between the notches. The same result may be obtained by making the lug a' slightly diagonal and the notches b straight across the beam, as will be clear.

What I claim as my invention is—

1. The improved beam-end protector A, having lug a' across the bottom, with an orifice a^2 near the end of the lug, and a wedge a^3, inserted through that orifice to adjust the beam B, all substantially as and for the purpose specified.

2. The combination of the beam-end protector A, having a lug a' and having orifices a^2 near each end of the lug a', with the beam B, having a notch b, said lug and notch being relatively diagonal, and the wedges a^3 at opposite sides of lug a, all substantially as set forth.

3. A beam-end protector A, having a lug a', with one or more orifices a^2 near the ends of lug a, substantially as and for the purpose set forth.

EDMUND GRINNELL.

Witnesses:
WM. A. TAYLOR,
AMAH B. WHITE.