

(No Model.)

M. F. McCARTHY.
BUILDING APPLIANCE.

No. 460,213.

Patented Sept. 29, 1891.

Fig. 1.

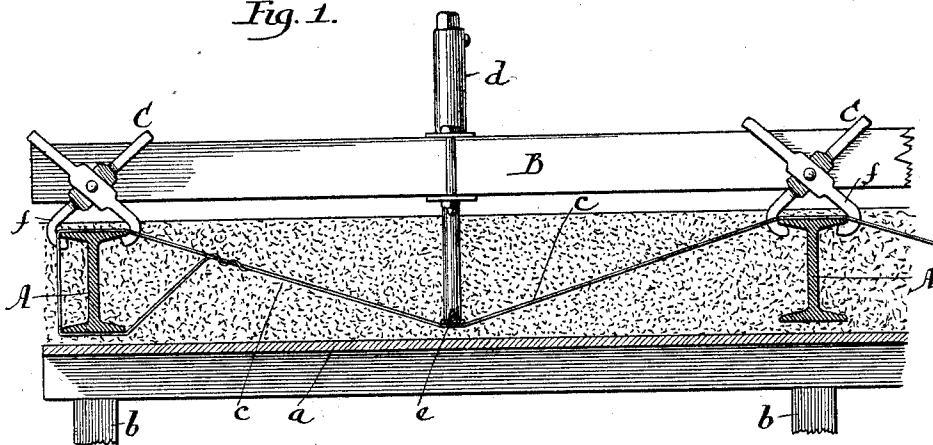


Fig. 2.

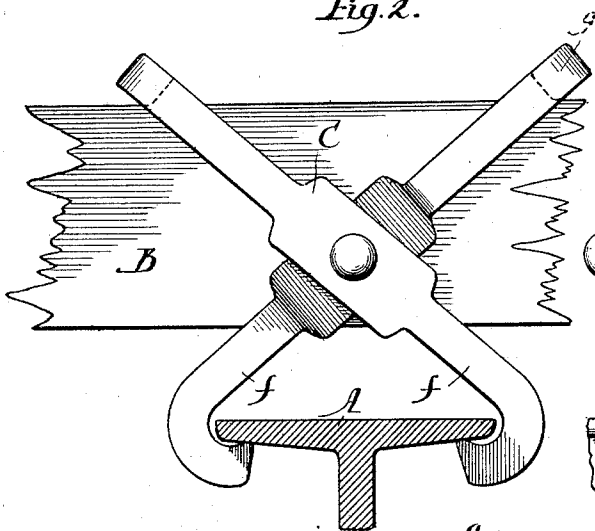


Fig. 3.

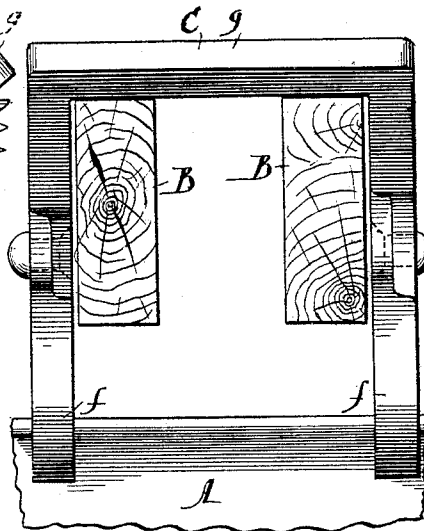
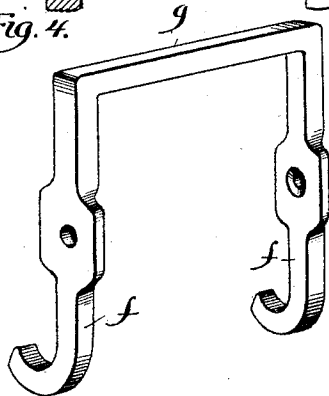


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

MITCHELL F. MCCARTHY, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE UNITED STATES FIRE PROOFING COMPANY, OF SAME PLACE.

BUILDING APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 460,213, dated September 29, 1891.

Application filed April 22, 1891. Serial No. 389,898. (No model.)

To all whom it may concern:

Be it known that I, MITCHELL F. MCCARTHY, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Building Appliances, of which the following is hereby declared to be a full, clear, and exact description, sufficient to enable others skilled in the art to which such invention appertains to make and use the same.

A recent improvement for laying fire-proof fillings of composition, tile, &c., within the beam spans or pockets at the ceiling and floor of a building designs to sustain the filling by means of a strand or wire-fabric support which rests upon the tops of the beams and extends between them. Such support is ordinarily embedded or incased by the filling and is oftentimes drooped under tension at the beam-span to secure better purchase on the superposed load and to distribute and equalize the strains and thrusts at the beams and elsewhere.

The present invention is especially useful in the practice of fireproofing according to the plan above outlined, and has reference to a clamp of peculiar structure and to the organization thereof, in combination, to effect the tension stretch of the filling-support mentioned.

The nature of the improvements will appear from the description following, and be precisely pointed out by claims at the conclusion thereof.

In the accompanying drawings, which form part of this specification, like parts are denoted by like designation throughout.

Figure 1 is a view in section at the floor and ceiling of a building, showing the tension appliances in position according to the practice of my invention. Fig. 2 is a view in side elevation at the clamp, the I-beam being shown in cross-section. Fig. 3 is a view in end elevation at the clamp, the binders or transom-pieces being shown in cross-section. Fig. 4 is a perspective view of one of the dual clamp-jaws detached.

Beneath the series of floor-beams A is arranged the staging *a*, sustained on posts *b*, serving thereby to close temporarily the pocket or span between adjacent beams.

Across and between the beams A extends the filling-support *c*, which consists, ordinarily, of a series of stout strands of wire secured together by cross-interlocks to form a compact netting or fabric. Sustained temporarily above the beams A is a binder or transom-piece, which carries the tension device, whereby the filling-support *c* is brought under proper strain between the beams A in readiness to receive the pocket-filling. For ease in handling, the binders or transom-pieces B are ordinarily used in pairs, the jack *d* being set so as to project between them in contact with the supporter *c* or tie-bar *e*, resting thereon. To hold the transom-pieces B against the thrust of the jack *d*, and thus secure proper tension strain upon the supporter *c*, clamps C are provided, these being located at the beams A, the jaws *f* of the clamps clasp the head of the beam between them. Each clamp C has a double purchase upon the floor-beam to which it is secured, and for this purpose the clamp consists of double sets of pivoted jaws *f*, the companion jaws for each member of the clamp being in unison connection through a common cross-bar *g*, overlying the transoms B. At the outset the binders B rest upon the beams A, while the clamps C loosely clasp the beams, sufficient play or free space existing between the clamp cross-bars *g* and the tops of the binders B to permit the easy release and removal of the clamps from position, if desired. When tension is applied through the jack *d* against the supporter *c*, the tendency is to lift the binders B from place, so that they finally assume the position indicated by the figures. The thrust of the binders B against the clamps C causes the jaws of the latter to tighten their grip on the beams A and to resist the further upward movement of the binders, so that the thrust at the jack *d* is brought to bear directly against the fabric support *c*. When the beam-pockets have been filled and set, the pressure of the jacks is released, thus returning the binders to position at rest on the beams A, relieving the clamp C, so that these can be freely withdrawn and the binders shifted to new position.

Changes in detail within the skill of the mechanic to effect may be made without departing from the invention.

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

5 1. In fireproofing buildings, the combination, with the beams and with the binder or transom mounted thereon, of the jack carried by said binder, and the jaw-clamps gripping said beams and overlapping the binder, substantially as described.

10 2. In fireproofing buildings, the combination, with the beams and with the strand-sustainer drooped between them, of the cross-binder mounted above said beams, the jack

carried thereby for thrust against the sustainer, and the jaw-clamps gripping said 15 beams and overlapping the binder, substantially as described.

3. A building-clamp comprising double sets of pivoted jaws, the opposite jaws of each set having a common cross-bar for unison con- 20 nection and movement, substantially as described.

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Witnesses:

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