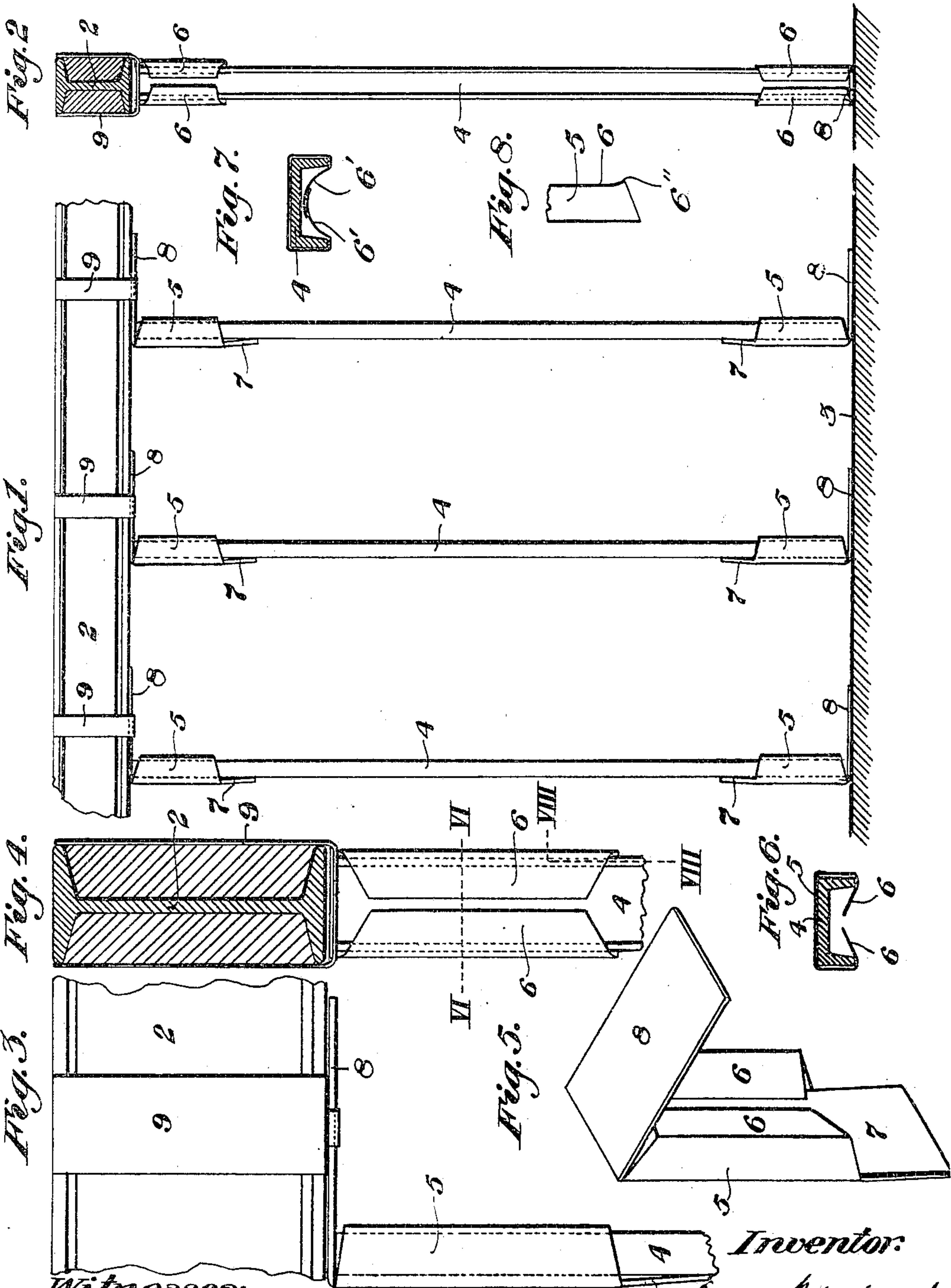


D. W. McNAUGHER.
STUDDING SHOE.

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UNITED STATES PATENT OFFICE.

DAVID W. McNAUGHER, OF ALLEGHENY, PENNSYLVANIA.

STUDDING-SHOE.

No. 799,251.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, DAVID W. McNAUGHER, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Studding-Shoes, of which the following is a specification, reference being had therein to the accompanying drawings, forming a part of the specification, in which—

Figure 1 is a view in side elevation of several of my improved studding members in position. Fig. 2 is an end view thereof. Figs. 3 and 4 are enlarged detail views. Fig. 5 is a perspective detail view of the adjustable shoe constituting the subject-matter of the present improvement. Fig. 6 is a cross-sectional view on the line VI VI of Fig. 4. Fig. 7 is a cross-section showing overlapping sides. Fig. 8 is a vertical section on the line VIII VIII of Fig. 4, illustrating a flaring-bottom construction.

My invention refers to improvements in fireproof building construction; and it has for its object to provide structural wall and partition elements with means whereby they may be easily and quickly adjusted and connected with the main structural portions of a building, as the floor and ceiling members.

The invention, generally stated, consists in providing the studding, partition, or wall members of any kind with adjustable connecting devices adapted to be set to proper position upon the studding and then attached to those portions of the structure with which the studding, &c., is incorporated, also to cheaply secure these results in a satisfactory and workmanlike manner, while avoiding the necessity of accurate cutting or fitting of the studding and avoid cutting away of concrete or flooring or disturbing of any portion of the building to which my invention or improved partition member is applied.

Referring now to the drawings, 2 represents a floor-beam of I, channel, or any other suitable cross-section, between which and the next lower floor 3 are inserted the studding members 4, also of any suitable structural form, as I-beam, channel, T, angle, &c.

Ordinarily studding of this character of fireproofing construction is cut to a fixed length and fitted between the floor and the under side of the next upper course of floor-beams, being secured thereto by wiring or

tying, it being obvious that other means, as nailing, &c., are not available by reason of the metallic construction. Ordinarily I have found that studding cut to length is either too long or too short to be accurately adjusted, owing to the variations in floors or ceiling levels, thereby necessitating either cutting off of the different pieces of studding or of cutting or recessing the floor, which is frequently of concrete, or else requiring splicing or blocking up of the studding underneath.

My invention consists in providing the studding with one or more adjustable extensible shoes 5 at one or both ends provided with terminal bearing portions adapted to be fitted against the under side of the beam or upon the floor, or both, and secured thereto in any suitable manner.

The shoe 5 constituting the present improvement is made of one piece of sheet metal bent around in the form adapted to embrace the studding 4, as shown in Figs. 5 and 6, for which purpose it is provided with lateral inwardly-turned sides 6 6, embracing the flanges of the studding member, as shown, and adapted to grasp and bear against them with a binding pressure or friction. This construction is to facilitate the adjustment of the shoe vertically upon the studding to the height desired and to provide means for preventing its displacement. The back plate or body portion of the shoe is extended downwardly below the lower terminals of such sides 6 and provides a vertical spring-bearing tongue 7 to give additional friction, so as to hold the shoe in any position, said tongue being bent inwardly, providing a spring-pressure. The upper portion of the shoe is bent over at right angles to the vertical portion and provides a flat tongue 8, which abuts directly against the under side of the beam or against the ceiling, and may be merely a flat tongue, as shown, so as to be incorporated with a holding-strap 9, as shown in Figs. 1 to 4, or may be provided with perforations by which it may be secured with nails or other suitable devices. In this manner it will be seen that the shoe is slidably adjusted upon the studding and may be adjusted upwardly or downwardly to lengthen or shorten it to fit the required space.

In Fig. 7 I have shown the sides 6' as overlapping each other, thereby entirely closing the joint, while still allowing for flexibility in bending the sides in between the flanges.

In Fig. 8 I have shown the lower edge 6" of the side 6 as slightly flared outwardly, so as to insure free passage over any fin or projection on the edge of the flange of the studding member.

As thus constructed the shoe is formed of a single integral blank stamped or sheared out of sheet metal and bent around in the manner described.

The device is very simple and cheap in construction, efficient in operation, and is made with a minimum of waste. It may be formed in various sizes or proportions and may be varied to suit the different structural members to which it is applied; but all such changes and variations are to be considered as within the scope of the following claims.

What I claim is—

1. An adjustable shoe for studding, &c., consisting of a single sheet of metal provided with inwardly-turned sides, a top bearing-

flange, and a deflected spring-bearing tongue, substantially as set forth.

2. An adjustable ferrule for studding, &c., consisting of a sheet-metal blank having lateral inwardly-folded sides, a bent-over top bearing portion, and an inwardly-deflected frictional tongue extremity, substantially as set forth.

3. An adjustable ferrule for studding, &c., consisting of a sheet-metal blank having lateral inwardly-folded sides having flaring bottoms, a bent-over top bearing portion, and an inwardly-deflected frictional tongue extremity, substantially as set forth.

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

DAVID W. McNAUGHER.

Witnesses:

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