

(No Model.)

2 Sheets—Sheet 1.

J. O. HANNA.  
GRAPPLING DEVICE FOR CARPENTERS.

No. 572,751.

Patented Dec. 8, 1896.

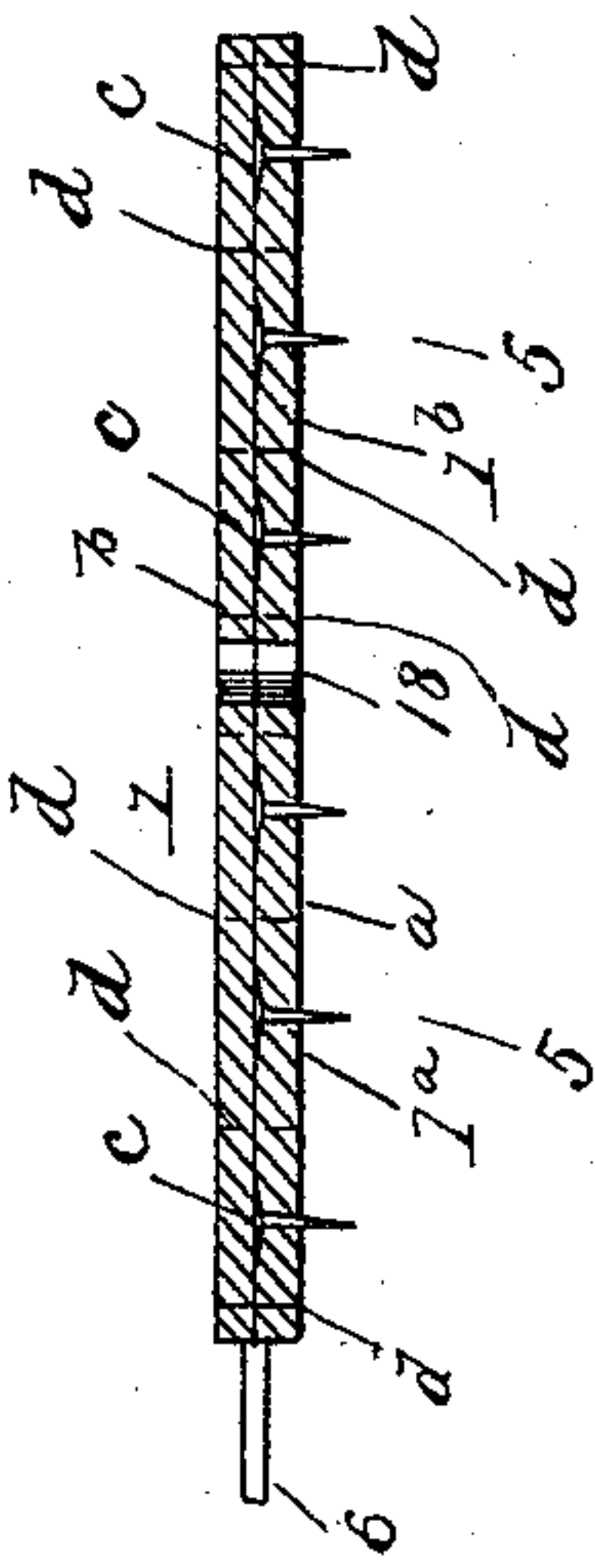


Fig. 4.

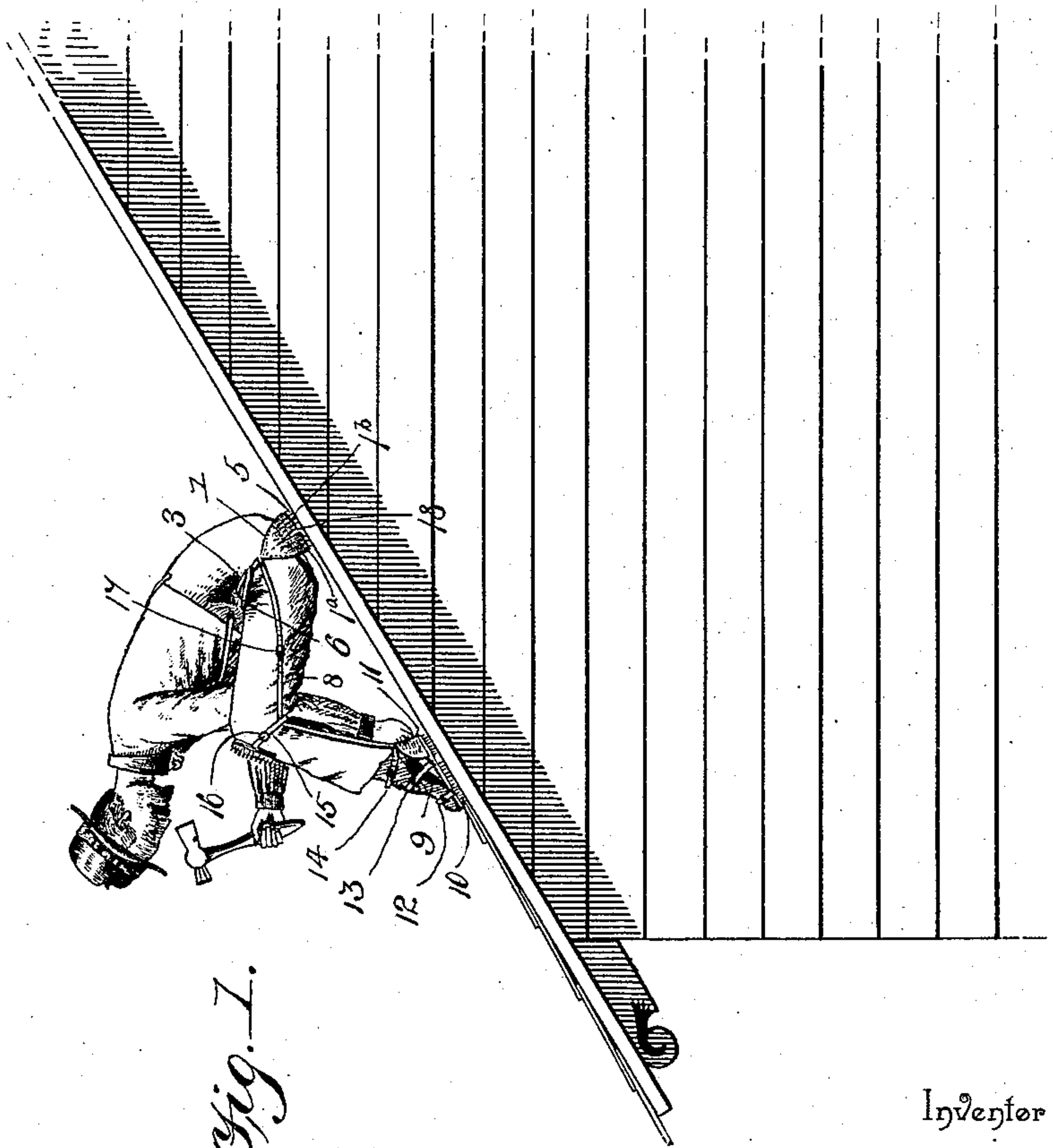


Fig. 1.

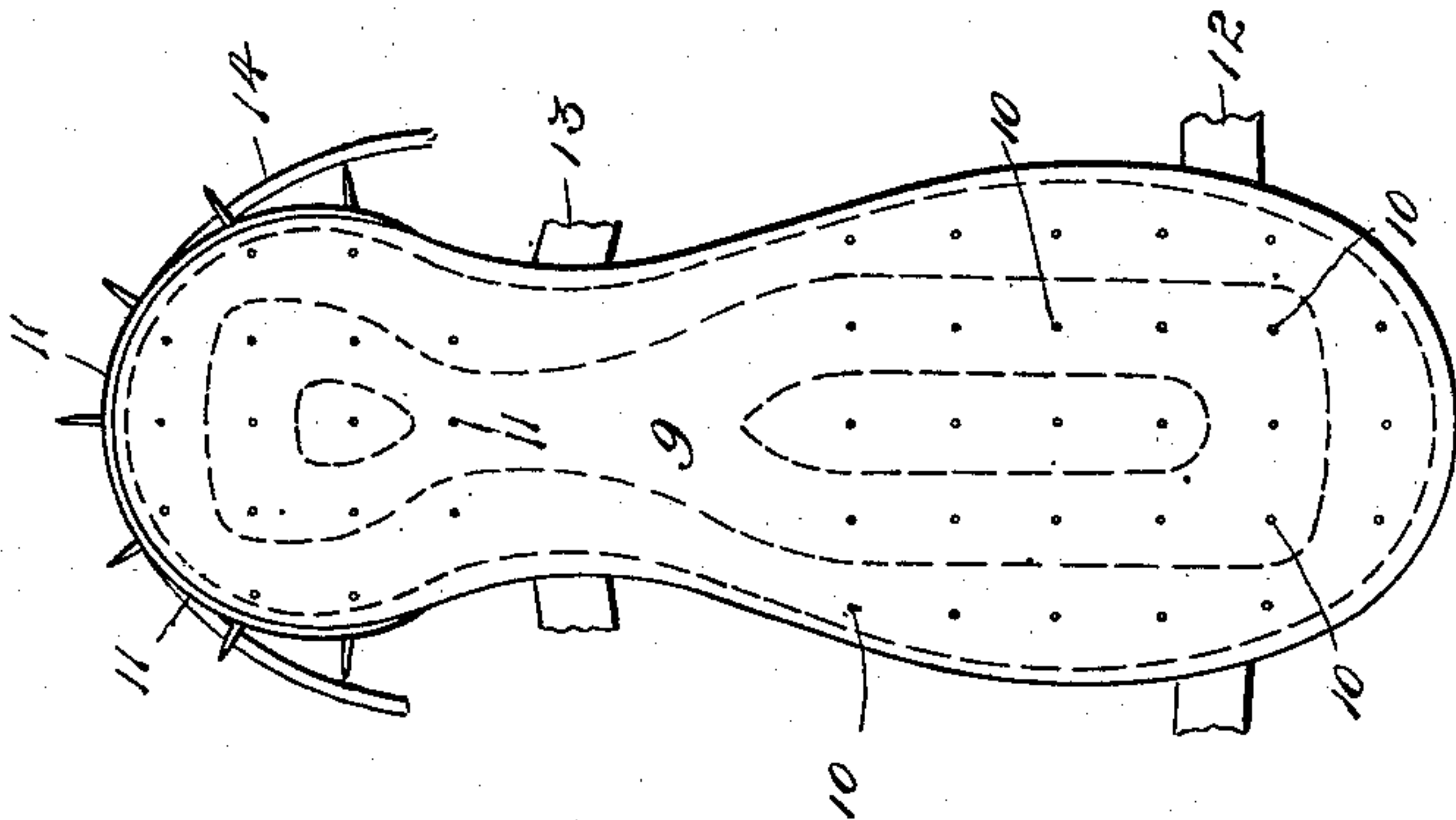


Fig. 5.

Witnesses

E. H. Monroe.

*E. H. Monroe*

By *his* Attorneys,

*C. A. Snow & Co.*

Inventor

*James O. Hanna.*

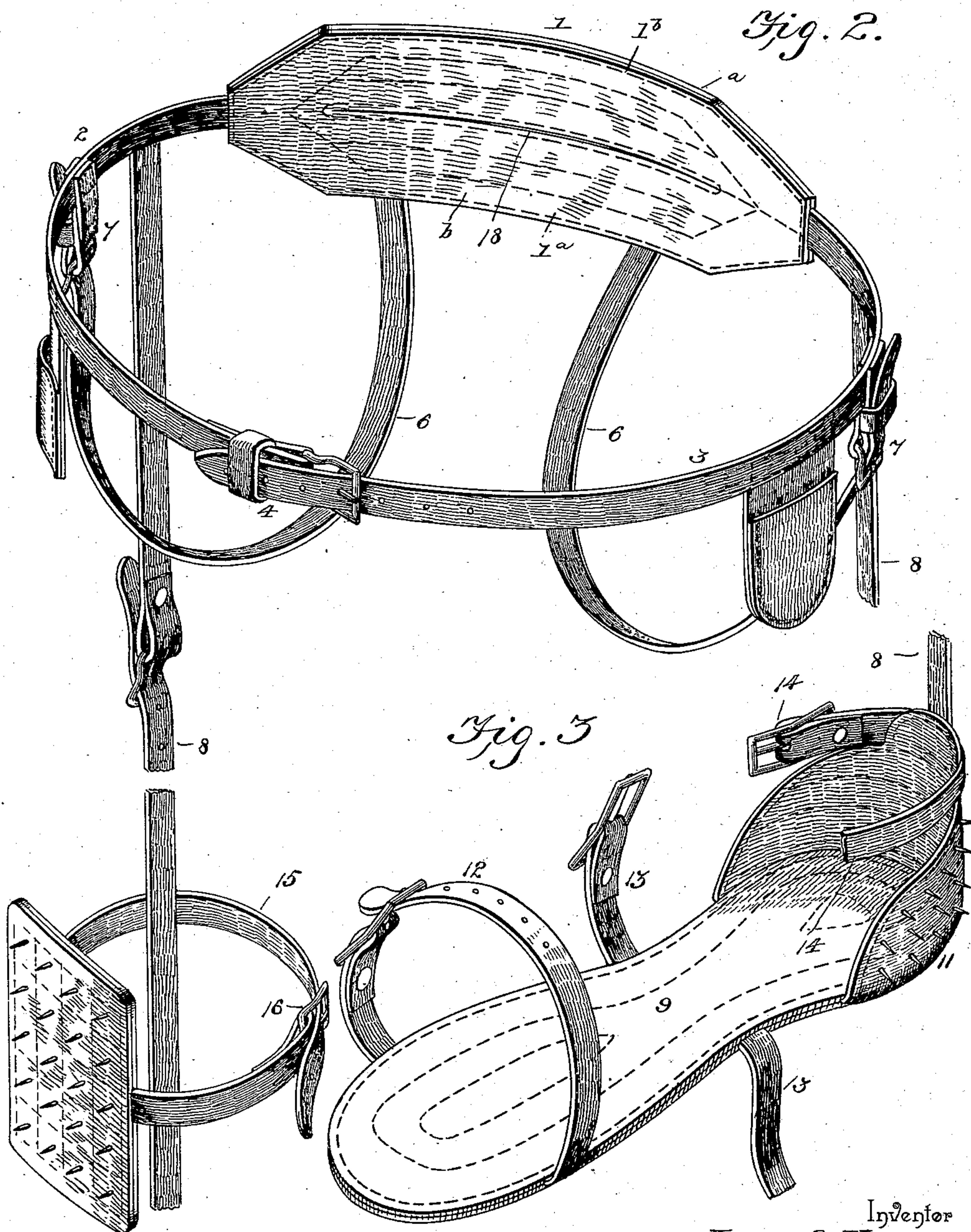
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E. A. Monroe.

*[Signature]*

By his Attorneys,

*[Signature]*

Inventor  
James O. Hanna.



# UNITED STATES PATENT OFFICE.

JAMES O. HANNA, OF AMITY, ARKANSAS, ASSIGNOR OF ONE-HALF TO  
WALTER W. MATTHEWS, OF SAME PLACE.

## GRAPPLING DEVICE FOR CARPENTERS.

SPECIFICATION forming part of Letters Patent No. 572,751, dated December 8, 1896.

Application filed January 22, 1896. Serial No. 576,447. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES O. HANNA, a citizen of the United States, residing at Amity, in the county of Clark and State of Arkansas, have invented a new and useful Grappling Device for Carpenters, of which the following is a specification.

My invention relates to a grappling device adapted for the use of carpenters in applying or repairing roofs, the object in view being to provide spurred pads adapted to be harnessed to the wearer and carried by him in the process of applying the roofing material to take the place of the roofing tackle and scaffolding now in use and ordinarily suspended from the ridge-pole or comb of the roof.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a view of a grappling device embodying my invention, the same being shown applied. Fig. 2 is a detail view of the body-pad detached. Fig. 3 is a similar view of one of the foot-pads detached. Fig. 4 is a transverse sectional view of the body-pad. Fig. 5 is a bottom plan view of the foot-pad.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The body portion 1 is horizontally elongated and is provided with terminal straps 2 and 3, forming a flexible connection, one of said straps being provided with a buckle or fastening device 4 to engage perforations in the other strap. It will be seen that the pad, in connection with said straps, forms a belt adapted to encircle the body of the wearer, and the exterior surface of the pad is spurred, as shown at 5, to engage the surface of a roof upon which the wearer is mounted. The belt is further provided with auxiliary securing-straps 6, each of which is attached at one end to the pad proper and at the other end to one of the belt-straps, an adjusting device, such as a buckle 7, being introduced to provide for varying the length of the strap to fit the wearer. These auxiliary straps are designed to encircle the thighs, and thus pre-

vent upward movement of the belt or downward movement of the wearer through the belt when the spurs are in engagement with the surface of the roof.

Connected to the belt by side or leg straps 8 are foot-pads 9, adapted to be arranged upon the feet of the wearer and having spurred under or exposed surfaces, as shown at 10. Said foot-pads are also provided with spurred counters or heel portions 11, which fit the rear side of the wearer's shoes. The foot-pad is secured firmly in place when in use by means of a toe-strap 12, an instep-strap 13, and an ankle-strap 14, and the intermediate portions of the leg-straps 8 are confined by knee-bands 15. Said knee-bands and leg or side straps are provided with buckles or similar adjusting devices 16 and 17, respectively.

The pad proper is longitudinally slitted, as shown at 18, to allow the upper and lower sides 1<sup>a</sup> and 1<sup>b</sup>, respectively, to separate or spread to accommodate the movements of the wearer when said pad is arranged to embrace the hips.

The spurs may be applied to the pads in a variety of ways, but that which I have found effective in this connection consists in forming each pad of a front or surface thickness or layer *a* and a rear or backing thickness or layer *b*, the spurs being provided with heads *c*, which are arranged between the thicknesses or layers with the points projecting through the exterior thickness or layer. Displacement of the parts is prevented by lines of stitching, which are illustrated in the drawings at *d*, such a line of stitching being arranged upon each side of each row of spurs. The knee-bands may also be provided with spurs, as shown, to facilitate climbing from one portion of a roof to another.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. A carpenter's grappling device for the purpose named having a spurred belt to embrace the hips, and means for fastening the same to the body of the wearer, substantially as specified.



2. A carpenter's grappling device for the purpose named having a spurred belt to embrace the hips of a wearer, and auxiliary holding-straps to embrace the thighs, substantially as specified. 5
3. A grappling device having a spurred belt and spurred foot-pads, and means for securing the same in place, substantially as specified.
4. A grappling device having a spurred belt, 10 spurred foot-pads, flexible connections between the foot-pads and the belt, and knee-bands for confining said connections at intermediate points, substantially as specified.
5. A grappling device having a spurred belt, 15 spurred foot-pads, side or leg straps connecting the foot-pads with the belt, and spurred knee-bands secured to the side or leg straps and embracing the legs of the wearer at intermediate points, substantially as specified. 20
6. A grappling device having a spurred belt consisting of a spurred body-pad to embrace the hips and means for holding the same in place, said pad being longitudinally slitted to yield with the movements of the body, substantially as specified. 25

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES O. HANNA.

Witnesses:

S. E. RICHARDSON,  
W. W. WATSON.