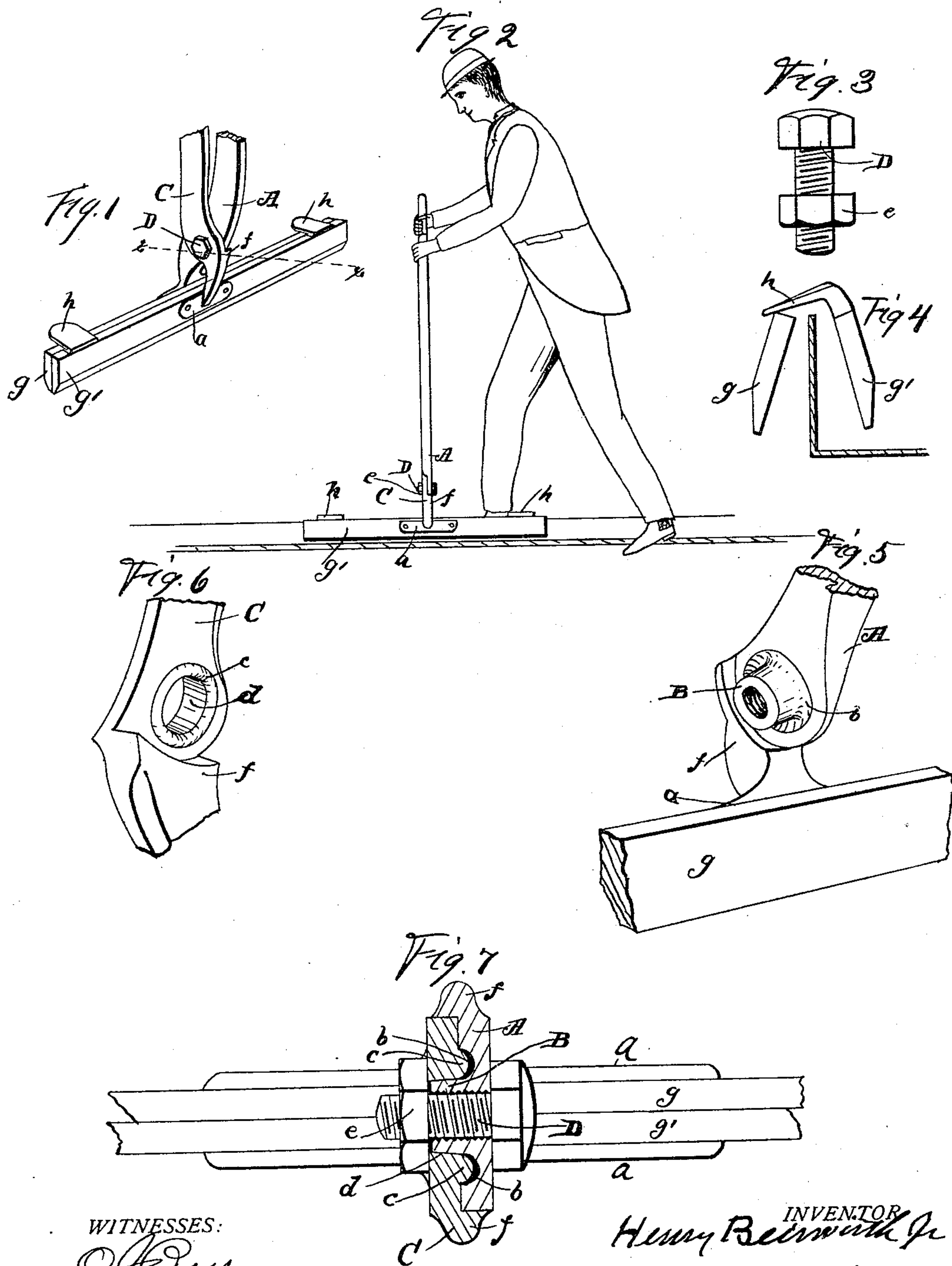


(No Model.)

H. BEIRWIRTH, Jr.
ROOFING TONGS.

No. 460,627.

Patented Oct. 6, 1891.



WITNESSES:

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HENRY BEIRWIRTH, JR., OF CANTON, OHIO.

ROOFING-TONGS.

SPECIFICATION forming part of Letters Patent No. 460,627, dated October 6, 1891.

Application filed June 13, 1891. Serial No. 396,201. (No model.)

To all whom it may concern:

Be it known that I, HENRY BEIRWIRTH, Jr., a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Roofing-Tongs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is an isometrical view showing the top or upper portions of the handles broken away. Fig. 2 is a side view of the tongs, showing the same placed in proper position to bend or fold the roofing. Fig. 3 is a detached view of the binding-bolt and its nut. Fig. 4 is an end view of the bending-bars, showing the same open. Fig. 5 is a detached view of the male arm or bar, showing a portion of the attaching-bar. Fig. 6 is a detached view of the female bar or arm. Fig. 7 is a top view of the attaching and bending bars and a sectional view through line *x x*, Fig. 1.

The present invention has relation to roofing-tongs; and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

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

In the accompanying drawings, A represents the male handle or bar, to the bottom or lower end of which is attached in any convenient and well-known manner the attaching-bar *a*. The handle or bar A is provided with the screw-threaded thimble B, the outer periphery of which is tapered, as illustrated in the drawings, and is so tapered for the purpose hereinafter described. The handle or bar A is provided with the annular groove *b*, which is for the purpose of receiving the annular flange *c*, located upon the female handle or bar C, as illustrated in Fig. 7. The female handle or bar C is provided with the tapered aperture *d*, which is for the purpose of receiving the screw-threaded thimble B, and upon which screw-threaded thimble B the handles or bars A and C are pivoted. For the purpose of binding the handles or bars A and C together the binding-bolt D is pro-

vided, which binding-bolt is provided with the nut *e*. For the purpose of strengthening the handles or bars A and C below their pivotal point the side extensions *f* are provided. It will be seen that by providing the annular groove *b* and the annular flange *c* the handles or bars will be prevented from tilting, and thereby insure a uniform or parallel movement of the folding-bars *g* and *g'*. It will also be understood that by providing the tapered thimble B and inserting the same into the tapered aperture *d* the wear from use can be taken up by tightening the binding-bolt D by means of the nut *e*. For the purpose of preventing the end of the screw-threaded thimble B from bearing against the nut *e*, said screw-threaded thimble is formed somewhat shorter than the width of the handle or bar C at the point where the tapered aperture *d* is located. The binding-bolt D is screw-threaded, and is so formed for the purpose of receiving a corresponding screw-thread within the tapered thimble B. The folding-bar *g'* is provided with the right-angle portions *h*, which are for the purpose of forming a stop or gage, the width of the folding-bars corresponding with the width of the metal designed and calculated to be folded.

It will be understood that different-sized folding-bars may be provided—as, for instance, one-inch or two-inch folding-bars may be used or any other desired size.

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

1. The combination of the pivoted handles or bars A and C, said handle A provided with the screw-threaded thimble B and the annular groove *b*, said handle C having the annular flange *c* and the aperture *d*, the said handles A and C being provided with the pivotal binding-bolt D, having the nut *e*, and the folding-bars *g* and *g'*, fixed to the handles A and C below their pivotal points, substantially as and for the purpose set forth.

2. The combination of the pivoted handles or bars A and C, said handle A provided with the tapered screw-threaded thimble B and the annular groove *b*, said handle C having the annular flange *c* and the aperture *d*, the said handles A and C being provided with the pivotal binding-bolt D, having the nut *e*, the side

extensions *f*, located upon and fixed to the handles A and C below their pivotal points, and the folding-bars *g* and *g'*, fixed to the lower ends of the handles A and C, and the right-
5 angle arms or portions *h*, fixed to the folding-bar *g'*, substantially as and for the purpose set forth.

3. The combination of the pivoted handles or bars A and C, said handle A provided with
10 the tapered screw-threaded thimble B and the annular groove *b*, said handle C having the annular flange *c* and the tapered aperture *d*,

the said handles A and C being provided with the pivotal binding-bolt D, having the nut *e*, and the folding-bars *g* and *g'*, fixed to said
handles A and C below their pivotal points, substantially as and for the purpose set forth. 15

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY BEIRWIRTH, JR.

Witnesses:

FRED W. BOND,

CHAS. M. STANETS.