

(No Model.)

B. M. STEELE.  
PORTABLE ROOF CHAIN.

No. 453,676.

Patented June 9, 1891.

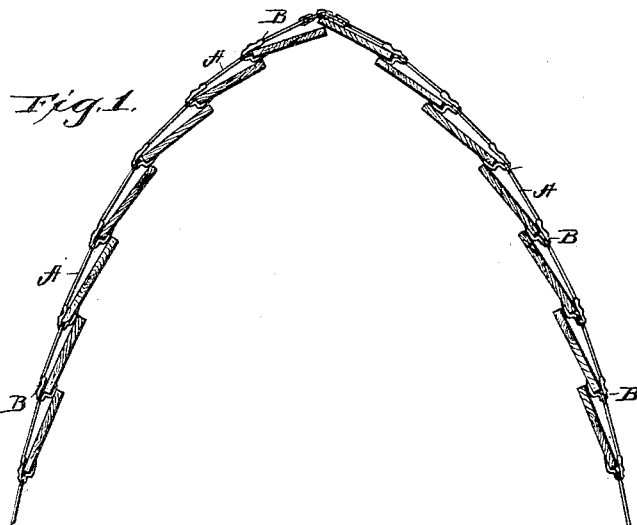


Fig. 1.

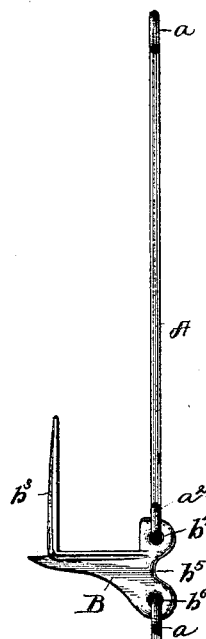


Fig. 5.

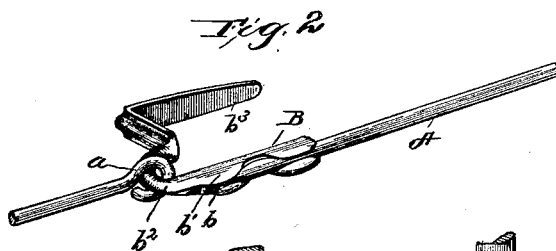


Fig. 2.

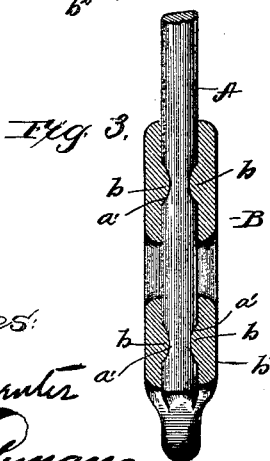


Fig. 3.

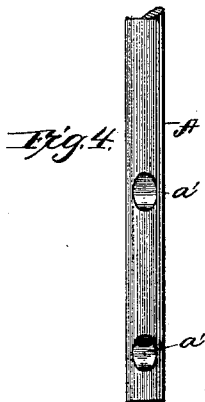
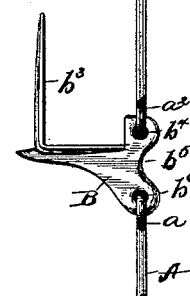


Fig. 4.



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# UNITED STATES PATENT OFFICE.

BENJAMIN M. STEELE, OF PEORIA, ILLINOIS, ASSIGNOR TO THE ACME HARVESTER COMPANY, OF SAME PLACE.

## PORTABLE-ROOF CHAIN.

SPECIFICATION forming part of Letters Patent No. 453,676, dated June 9, 1891.

Application filed November 11, 1890. Serial No. 371,045. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN M. STEELE, of Peoria, in the county of Peoria, in the State of Illinois, have invented certain new and useful Improvements in Chains for Portable Roofs, 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.

My present invention has relation to the improvement of the construction of chains whereby the boards of portable roofs—such, for example, as are used for covering hay or straw stacks, corn-cribs, and the like—may be conveniently and securely held together.

My invention has for its object to simplify and cheapen the construction of chain and to enable it to be readily formed and in such manner as to securely retain the boards of the roof in proper position. This object I have accomplished by the novel features of construction hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the claims at the end of this specification.

Figure 1 is an end elevation of a stack-roof having my improved chains for supporting the boards. Fig. 2 is a detail perspective view of portions of adjoining links of the stack-roof chain. Fig. 3 is a vertical section through the lower portion of the link. Fig. 4 is a detail side view of the lower portion of the link-body. Fig. 5 is a view in side elevation, showing the modified form of link.

In Figs. 1, 2, and 3 of the drawings I have illustrated my preferred form of chain. Each of the links of this chain is by preference formed in two parts—namely, a body part A and a holder B, this body portion and holder being conveniently attached together by preference in the manner hereinafter described. The body A of the chain-link may be formed of wrought-iron with an eye *a* at its upper end, and in order to more securely unite the holder B to the body A, I prefer to provide the body at its lower end with seats or indentations *a'*, adapted to receive lugs or projections *b*, formed upon the overlapping portions *b'* of the holder B. The holder B is preferably

of malleable cast-iron, and is attached to the lower end of the body A of the link by placing the lower end of the body between the overlapping portions *b'* of the holder and then compressing these portions with a hammer until the lugs *b* enter the seats *a'* of the main body of the link. The lower part of the holder B is by preference formed with a portion *b<sup>2</sup>*, that is encircled by the eye *a* of the next adjacent link, and the free end *b<sup>3</sup>* of the holder is formed larger or broader than the portion *b<sup>2</sup>* in convenient manner, so as to prevent the slipping of the eye *a* from off the end of the holder. By preference the holder B is formed with a rectangular seat to receive and firmly hold the bottom edge of the roof-board, the bottom of this seat forming a firm bearing for the bottom edge of the board, while the upwardly-extended portion of the holder forms a means for securely holding the side of the board. This form of chain can be cheaply and readily made, and when the links are connected together can be conveniently folded into very compact space, so as to economize room in storage or shipment.

In the form of chain illustrated in Fig. 5 of the drawings each malleable-iron holder B is formed separate from but attached to the lower portion of the body A of the link above it. The body of the link is preferably of wrought metal, and is provided at its upper end with an eye *a* and at its lower end with a corresponding eye *a<sup>2</sup>*, that will engage with an eye *b<sup>4</sup>*, formed in the extension *b<sup>5</sup>* of the holder B. The lower portion of this extension *b<sup>5</sup>* is provided with a similar eye *b<sup>6</sup>*, with which will engage the upper eye *a* of the next link of the chain. The holder B, like the holder of the chain hereinabove described, is provided with an upturned portion *b<sup>3</sup>*, which forms with the base of the holder a rectangular seat to receive the bottom edge of the roof-boards. The advantage incident to forming the holders B of malleable iron and separate from the bodies A of the links is that it enables a very simple, cheap, and effective construction to be provided.

It will be understood, however, that certain features of my invention may be employed without its adoption as an entirety, and that

the precise details of construction above set out may be modified without departing from the spirit of my invention.

I do not wish to be understood as claiming  
5 herein the construction of claim set forth in the application of William J. Rowley, filed in the United States Patent Office February 19, 1890, Serial No. 340,998.

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

1. A chain for stack-roofs or like purposes, composed of links, each having an eye at one end and having an upwardly-extending hook  
15 or holder for the board at its opposite end, the eye of one link engaging with suitable neck at the bottom of the adjacent link, and the holder of each link being formed larger or of greater extension than the neck to retain  
20 the eye in engagement with the holder, substantially as described.

2. A link for a chain for stack-roofs or like purposes, comprising a body or rod A and a holder B, formed of cast metal and provided  
25 with a seat  $b^2$  and an upwardly-extending hook portion  $b^3$ , substantially as described.

3. A link for a chain for stack-roofs or like purposes, comprising a body A and a suitable holder B, said holder being formed with over-  
30 lapping portions  $b'$ , whereby the holder may

be attached to the body of the link, substantially as described.

4. A link for a chain for stack-roofs or like purposes, comprising a body A of wrought metal, provided at its upper end with an eye  
35  $a$  and at its lower end with seats  $a'$ , and a cast-metal holder B, having overlapping portions  $b'$ , whereby the holder may be attached to the body of the link, substantially as described.

5. A chain for stack-roofs or like purposes, 40 consisting of links comprising wrought-iron bodies and cast-metal holders formed with upwardly-extended parts  $b^3$  to retain the boards in place, said holders being interposed between the bodies of adjacent links and serv-  
45 ing to unite the bodies to form a contiguous chain, substantially as described.

6. A chain for stack-roofs or like purposes, formed of links and having holders for the roof-boards, said holders being formed sepa-  
50 rate from said bodies and being provided each with a rectangular seat to receive the bottom edge of a roof-board, and said holders being interposed between the bodies of adjacent links and serving to unite the bodies to form  
55 a contiguous chain, substantially as described.

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Witnesses:

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