(No Model.) 2 Sheets—Sheet 1.

H. WHITE.

THIMBLE.

No. 522,245. Patented July 3, 1894.

Fig. 1.

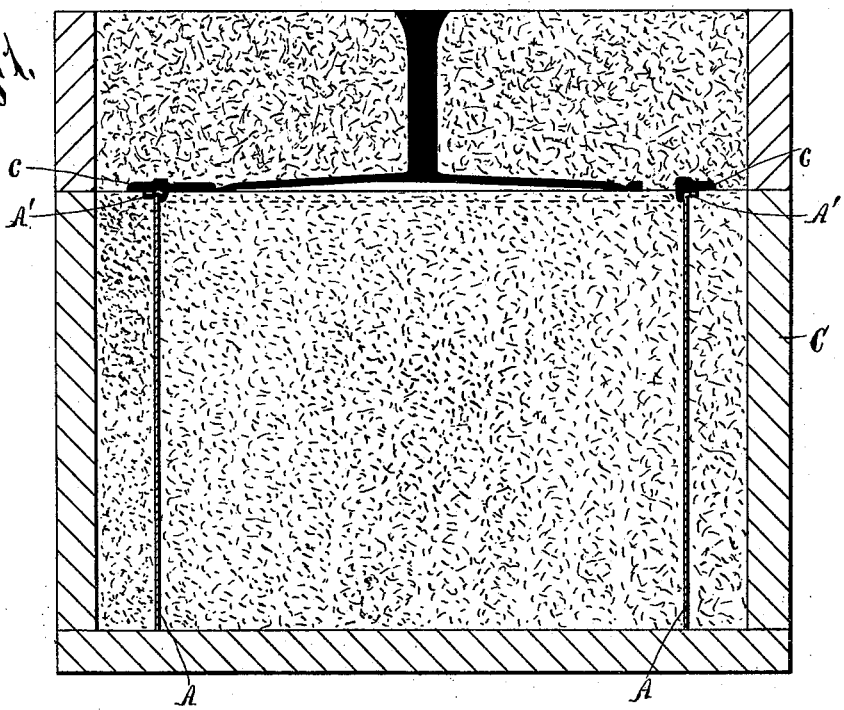
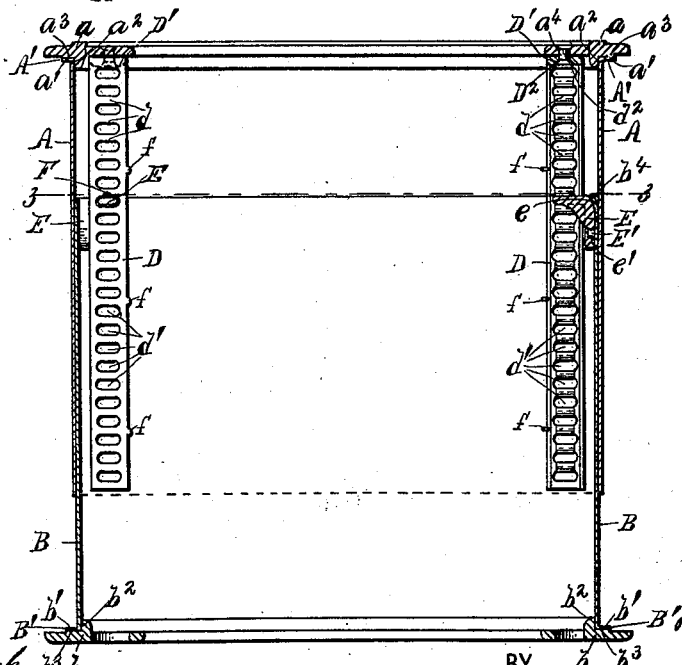


Fig. 2.



WITNESSES:

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ATTORNEYS.

(No Model.) 2 Sheets—Sheet 2.

H. WHITE.

THIMBLE.

No. 522,245. Patented July 3, 1894.

Fig. 3.

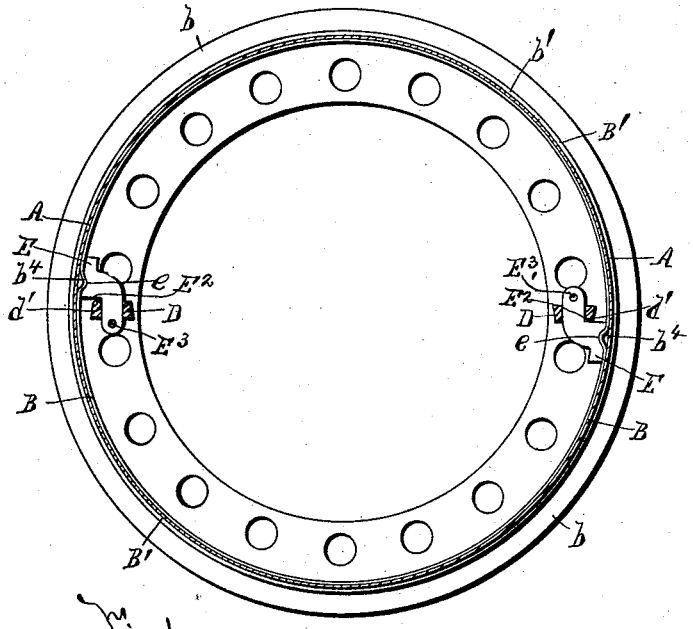


Fig. 4.

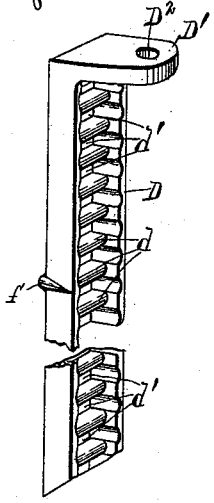
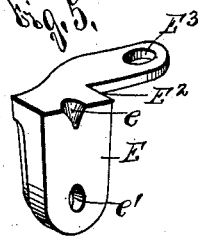


Fig. 5.



WITNESSES:
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UNITED STATES PATENT OFFICE.

HARRY WHITE, OF SYRACUSE, NEW YORK.

THIMBLE.

SPECIFICATION forming part of Letters Patent No. 522,245, dated July 3, 1894.

Application filed June 7, 1893. Serial No. 476,852. (No model.)

To all whom it may concern:

Be it known that I, HARRY WHITE, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Thimbles, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in thimbles for encircling stove-pipes passed through partitions or other walls, and for similar purposes, and has for its object the production of a simple and practical device, which is cheaply manufactured, is durable and efficient in use, is readily adjusted to the desired length, and is rigid and firm when in operative position; and to this end it consists, essentially, in a thimble section comprising a hollow body portion formed of sheet metal and provided with an outturned flange at one end and a facing fused to the outer end of the inner periphery of the body portion and fused also to the outer face of the flange provided on said body portion.

The invention furthermore consists in a series of engaging shoulders secured to one of the sections, and a locking member or arm secured to the other section for engaging said shoulders, and in the detail construction and arrangement of the parts, all as hereinafter more particularly described and pointed out in the claims.

In describing this invention, reference is had to the accompanying drawings, forming a part of this specification, in which like letters indicate corresponding parts in all the views.

Figure 1 is an elevation, partly in section, of a flask having the body portion of one of the telescoping sections of my thimble shown in section in position therein for securement to the facing formed by the entrance of molten material within the flask. Fig. 2 is a vertical sectional view of my improved thimble shown as slightly extended. Fig. 3 is a horizontal sectional view, taken on line —3—3—, Fig. 2. Fig. 4 is an isometric perspective of the locking member or arm secured to one of the sections, a portion thereof being broken away, and Fig. 5 is a similar isometric perspective of the locking member or arm secured to the opposite section.

It is well known that thimbles are frequently used to encircle stove-pipes and similar articles, and for like purposes. These thimbles are ordinarily constructed of telescoping sections, which are provided with facings secured thereto by rivets or other mechanical fastening means. The sections are also usually held in their adjusted position by means of springs, which are more or less liable to lose their efficiency, and to detract from the practicability of the thimble.

My invention consists of a thimble having a facing of cast material fused to the outer end of the body portion of one or both of the sections composing the same and having its sections detachably secured together by rigid interlocking members or arms.

A B represent the sections of my improved thimble, and *a b*, facings fused at *a' b'*, to the outer edges of the hollow body portions of the sections A B. The body portions of the sections, A B, are preferably composed of suitable sheet metal as tinned iron, and the facings *a b*, preferably consist of rings composed of cast material as cast iron.

As clearly seen at Figs. 1, 2, and 3 the body portions of the sections, A B, are provided at their outer ends with flanges A' B' for furnishing additional surface to which the facings may be fused. As clearly seen at Fig. 1 the body portion of the section to which the facing is to be secured, is supported in a flask C with its upper edge at the base of the cavity or mold *c* therein for receiving the molten material which enters through the sprue hole *c'*, and forms the cast facing secured to said body portion of the section.

The metal forming the cast facing is considerably greater in bulk than that forming the part of the body portion of the section to which the facing is fused, and consequently the molten metal forming the cast facing fuses to the adjacent surface of the section body portion to be fused thereto before said molten metal cools and assumes its normal condition.

The facings, *a b*, are preferably provided with substantially vertical and horizontal surfaces a^2 b^2, a^3 b^3, for securement respectively to the inner periphery of the outer edges of the body portions of the sections A B, and to the outer face of the flanges *a' b'* of said body portions. This construction of section is

economically manufactured, and is evidently strong and durable in use, since the facing is virtually an integral part of the section. As is evident, however, only one of the sections of my thimble may be, if desired, provided with a facing fused thereto and the other section may be unprovided with a facing, or it may have a facing secured in any other well known manner.

D is a locking member or arm secured to one of the sections of my improved thimble, and having its outer upright wall sufficiently separated therefrom to permit entrance between the adjacent surfaces of said section and locking member, of the opposite section.

As will be readily perceived upon reference to Fig. 2 the locking member or arm D is secured to the facing of the section provided therewith instead of being secured directly to said section, but, as the facing forms essentially a portion of the section, the locking member or arm is, as is evident, virtually secured to the section. This locking member or arm is provided with a number of shoulders d arranged one above the other, and with a series of slots or apertures d' interposed between said shoulders. To facilitate its securement the locking member or arm is provided with a foot D′ having an opening or slot D^2 therein for receiving a rivet d^2 which also enters an opening a^4 in the facing a.

E is a locking member or arm secured to the section B, and consisting of a foot and a laterally projecting engaging end. The foot of the locking member or arm E is provided with a recess or socket e for receiving a projection b^4 of the section B and with an opening or aperture e' for receiving a rivet E′, which, in connection with the interlocking of the socket or recess e and shoulder b^4, effectually secures the locking member or arm E in operative position.

The laterally projecting end of the locking member or arm E is, as best seen at Fig. 3, arranged in the same concentric plane as the slots or apertures d', in the locking member or arm D, and is adapted to enter said slots or apertures and interlock with the shoulders d for preventing lengthwise adjustment of the thimble. At the base of the laterally extending engaging end of the locking member or arm E is a shoulder E^2 for engaging the adjacent faces of the locking member or arm D, and limiting the partially revoluble movement of one section within the other, and provided in the outer end of said locking member or arm is an aperture E^3 for receiving a suitable stop or pin F, which engages the face of the locking member or arm D opposite to the face thereof engaged by the shoulder E^2 of the locking member or arm E.

As is clearly seen at Figs. 2 and 3 I preferably provide the section A with two oppositely arranged locking members or arms D and the opposite section B with similarly arranged locking members or arms E E having oppositely extending engaging ends, but it is evident that only one of each of said locking members or arms may be used if desired.

When thimbles are used in new houses they are frequently placed in position before the partitions provided therewith are plastered, and the facings of the thimbles act as guides to limit the thickness of the plaster, and greatly aid the workmen in laying a uniform thickness of the plaster around the thimble openings in the partitions, and producing a finished and workmanlike effect. It is necessary, however, to adjust the thimble to the predetermined thickness of the partition provided therewith, and consequently I form one of the sections of my thimble with a suitable gage which, as here illustrated, consists of a series of ribs f provided upon the locking member D. The position of the locking member E relative to the ribs f enables the ready adjustment of these sections, and, as partitions are ordinarily of standard thickness side walls from four to eight inches, and flooring six to twelve inches, but a limited number of ribs f are required, and the user readily determines upon the precise one which it is desired to register with the locking member D in order to adjust the thimble to the required length. It is evident, however, that grooves or other distinguishing marks may be used instead of the ribs f.

The operation of my invention will be readily perceived from the foregoing description and upon reference to the drawings, and it will be particularly noted that the same is economically manufactured, simple in construction, is easily adjusted, firmly held in its adjusted position, and is strong and durable in use.

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

1. As a new article of manufacture, the herein described thimble section, the same comprising a hollow body portion formed of sheet material and provided with an outturned flange at one end, and a facing fused to the outer end of the inner periphery of the body portion and fused also to the outer face of the flange provided on said body portion, substantially as set forth.

2. The herein described thimble, the same comprising telescoping sections, one of which is provided with a lengthwise series of engaging shoulders, a locking member or arm on the other section for engaging said shoulders, and a stop removably mounted in the end of said locking member or arm, substantially as and for the purpose specified.

3. The herein described thimble, the same comprising telescoping sections, a locking member or arm having one end secured to the outer end of one of the sections and the other end extending within the other section and provided with engaging shoulders, and a locking member or arm on said other section for engaging said shoulders, substantially as and for the purpose set forth.

4. The herein described thimble, the same comprising telescoping sections, oppositely arranged locking members or arms having corresponding ends secured to one of said sections and their opposite ends extending within the other section and provided with a series of engaging shoulders, and oppositely arranged locking members or arms provided with feet secured to said other section and having oppositely extending lateral ends for engaging said shoulders, substantially as and for the purpose specified.

5. The herein described thimble, the same comprising telescoping sections, a locking member or arm secured to one of the sections and extending within the other section and provided with a series of slots, and a second locking member or arm secured to said other section and having an engaging end for entering said slots, substantially as and for the purpose set forth.

6. The herein described thimble, the same comprising telescoping sections, a locking member or arm secured to one of the sections and provided with a series of slots, a second locking member or arm secured to the other section and having an engaging end for entering said slots, and a stop secured to the latter locking member or arm for preventing its withdrawal, substantially as and for the purpose described.

7. The herein described thimble, the same comprising telescoping sections, oppositely arranged locking members or arms having corresponding ends secured to one of the sections and their opposite ends extending within the other section and provided with a series of slots, and oppositely arranged locking members or arms secured to said other section and having oppositely extending engaging ends for entering said slots and provided with shoulders for engaging the former locking members or arms, substantially as and for the purpose specified.

8. The herein described thimble, the same comprising telescoping sections, one being provided with engaging shoulders and the other with a projection, and a locking member or arm secured to the latter projection and having an end for engaging said shoulders and a socket for receiving said projection, substantially as and for the purpose described.

9. The herein described thimble, the same comprising telescoping sections, one being provided with a gage and the other with an arm movable along the gage, substantially as and for the purpose specified.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 24th day of May, 1893.

HARRY WHITE.

Witnesses:
E. A. WEISBURG,
CLARK H. NORTON.