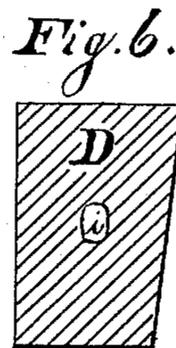
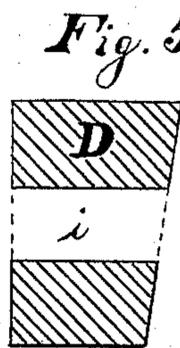
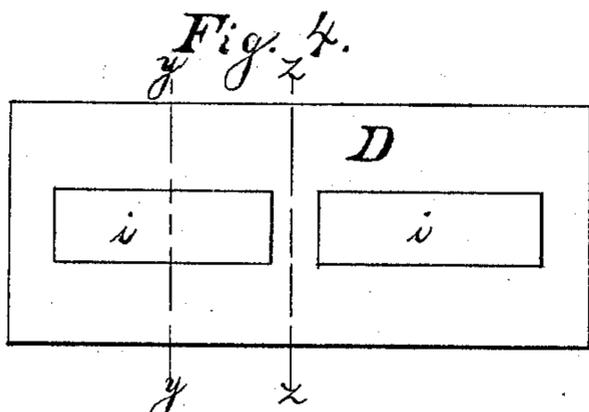
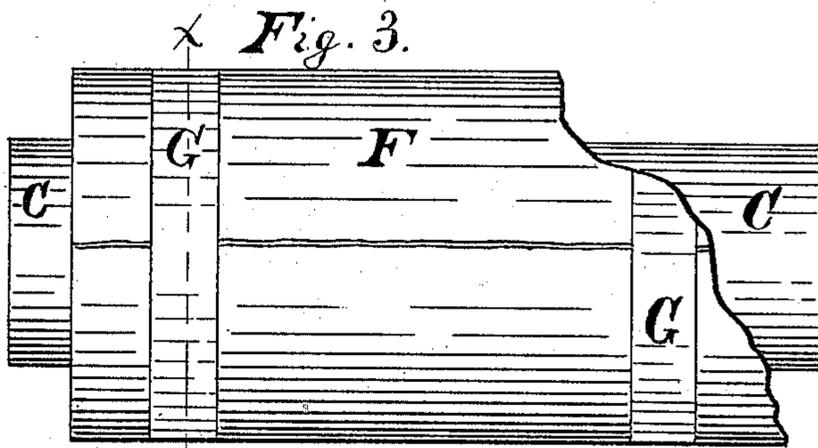
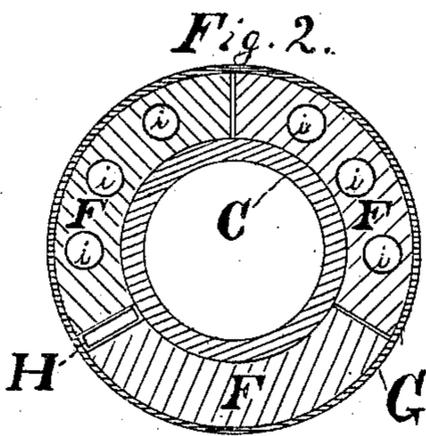
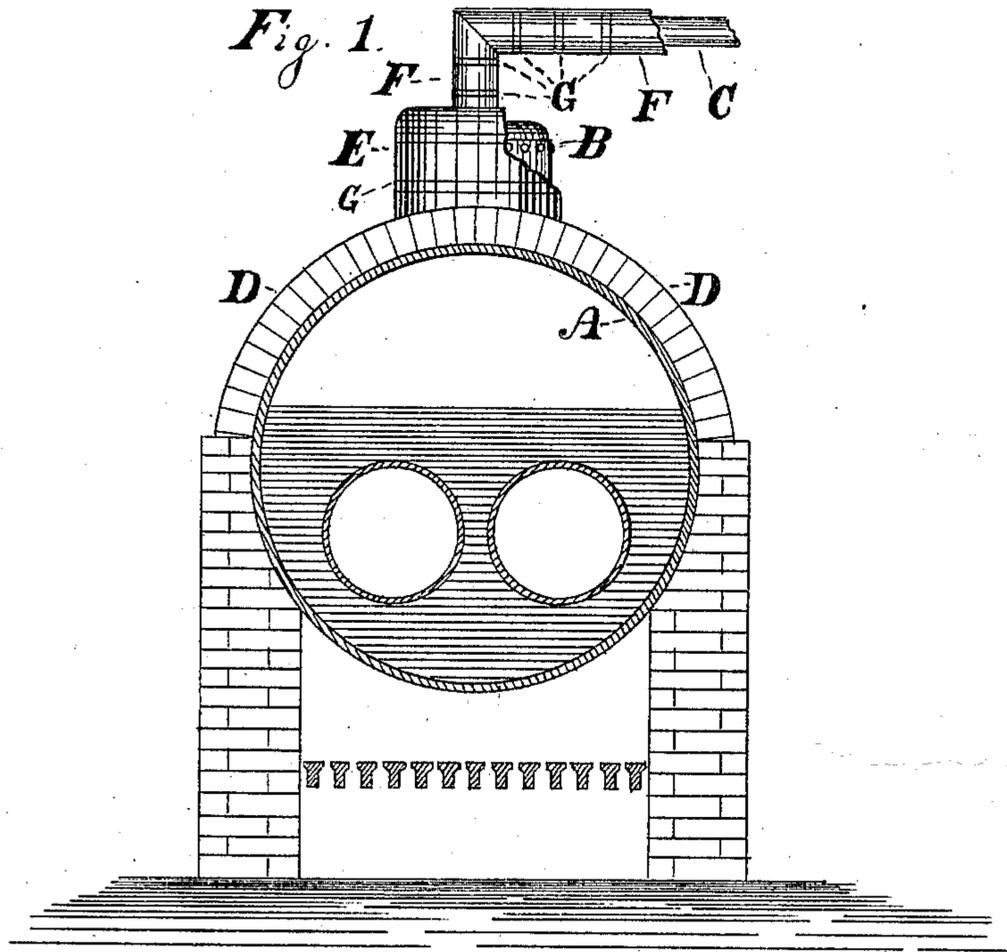


G. KELLY.  
 Steam-Boiler and Pipe-Covering.

No. 212,607.

Patented Feb. 25, 1879.



WITNESSES.  
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 Wm. J. Millner.

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 C. Bradford  
 ATTORNEY.

# UNITED STATES PATENT OFFICE.

GEORGE KELLY, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN STEAM BOILER AND PIPE COVERINGS.

Specification forming part of Letters Patent No. **212,607**, dated February 25, 1879; application filed June 15, 1878.

*To all whom it may concern:*

Be it known that I, GEORGE KELLY, of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Steam Boiler and Pipe Coverings, of which the following is a specification, reference being had to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts.

Figure 1 is a transverse vertical section of a steam-boiler, having a dome thereon, with a pipe leading therefrom, all of which are shown protected by my improved covering. Fig. 2 is a transverse section of the pipe, on an enlarged scale, showing air-chambers in the covering, as seen from the dotted line  $x x$  in Fig. 3. Fig. 3 is a side elevation of the pipe, on the same scale as shown in Fig. 2. Fig. 4 is a side view of one of the sections D used in the covering of the boiler. Figs. 5 and 6 are transverse sectional views upon the dotted lines  $y y$  and  $z z$ , respectively, of the same section of covering shown in Fig. 4.

In said drawings, the portion marked A is an ordinary steam-boiler; B, a dome thereon; C, a pipe leading therefrom; D, the covering on the boiler A; E, the covering on the dome B; F, the covering on the pipe C; G, bands or hoops, which secure the covering to the various parts to which it is applied; and H, a piece of elastic packing, placed between the sections of the covering, to insure that the joints shall be and remain perfectly tight.  $i i$  are cavities formed in the sections or parts of which these several coverings are composed, which, when the said sections are placed in position, form together a continuous air-chamber throughout the entire extent of said coverings.

The value of this feature will be readily understood, as a dead-air chamber in a wall always adds greatly to its non-conducting properties, and the locating of the cavities within the substance of the covering gives the full benefit of the former without lessening the strength of the latter.

The advantages of having the covering material made in solid sections will also be easily comprehended. In the ordinary form of plaster it has to be laid on with a trowel, which is a very difficult and troublesome process; and in the form of felting it must be moulded or wrapped about the parts to be covered, which, while not so difficult as the other, requires greater labor than my process, and is also quite difficult to remove. The sections of my material, being molded or pressed into sections of the proper size and shape, are simply laid closely to each other upon the parts to be covered, where they are secured by the bands or hoops G.

This covering is applicable to steam-boilers, steam-pipes, heaters, tanks, fenders, furnaces, and to all other articles which it is desirable to have protected by a non-conducting material. It is readily molded into any form, and when in the proper shape is more easily applied than any other of the materials for this purpose now in use. It is also inexpensive.

I prefer, after having applied my material, to cover it with one or more coats of paint, whitewash, or some other similar material, which will fill up the interstices, and keep the cold air out more effectually. This, however, is a matter for the judgment of the user.

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

1. The combination of the removable molded sections of covering, having air-spaces  $i i$  within their substance, with the elastic packing H, substantially as herein shown and specified.

2. A covering for steam pipes and boilers, consisting of removable molded sections, having air-spaces  $i i$  within their substance, substantially as herein shown and specified.

In witness whereof I have hereunto set my hand and seal at Chicago, Illinois, this 12th day of June, A. D. 1878.

GEORGE KELLY. [L. S.]

In presence of—

WILLARD F. WALLACE,  
I. S. LONG.