

No. 821,285.

PATENTED MAY 22, 1906.

P. FEWSON.

MEANS FOR THE PROTECTION OF SCREW NUTS.

APPLICATION FILED MAY 29, 1905.

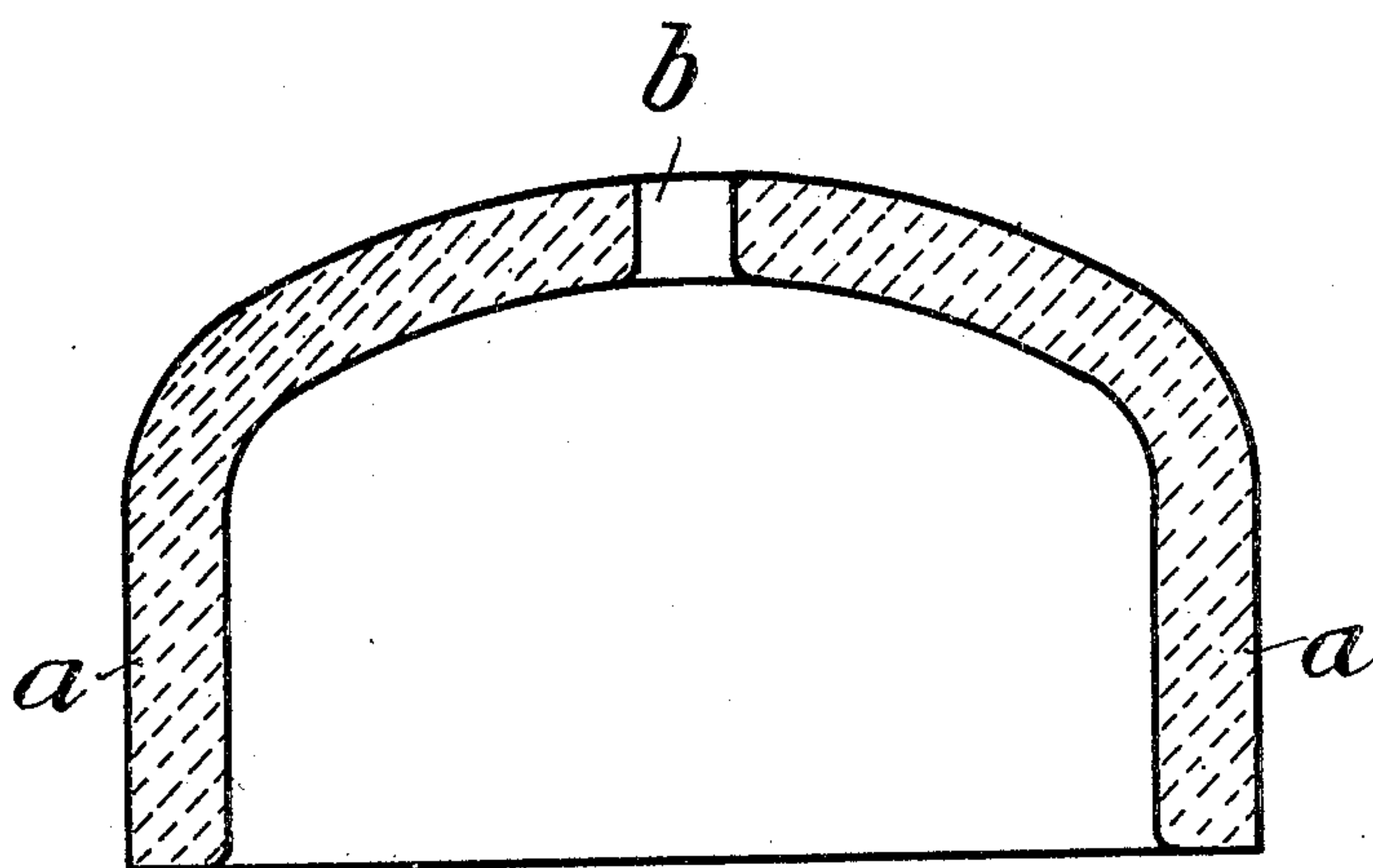


Fig. 1.

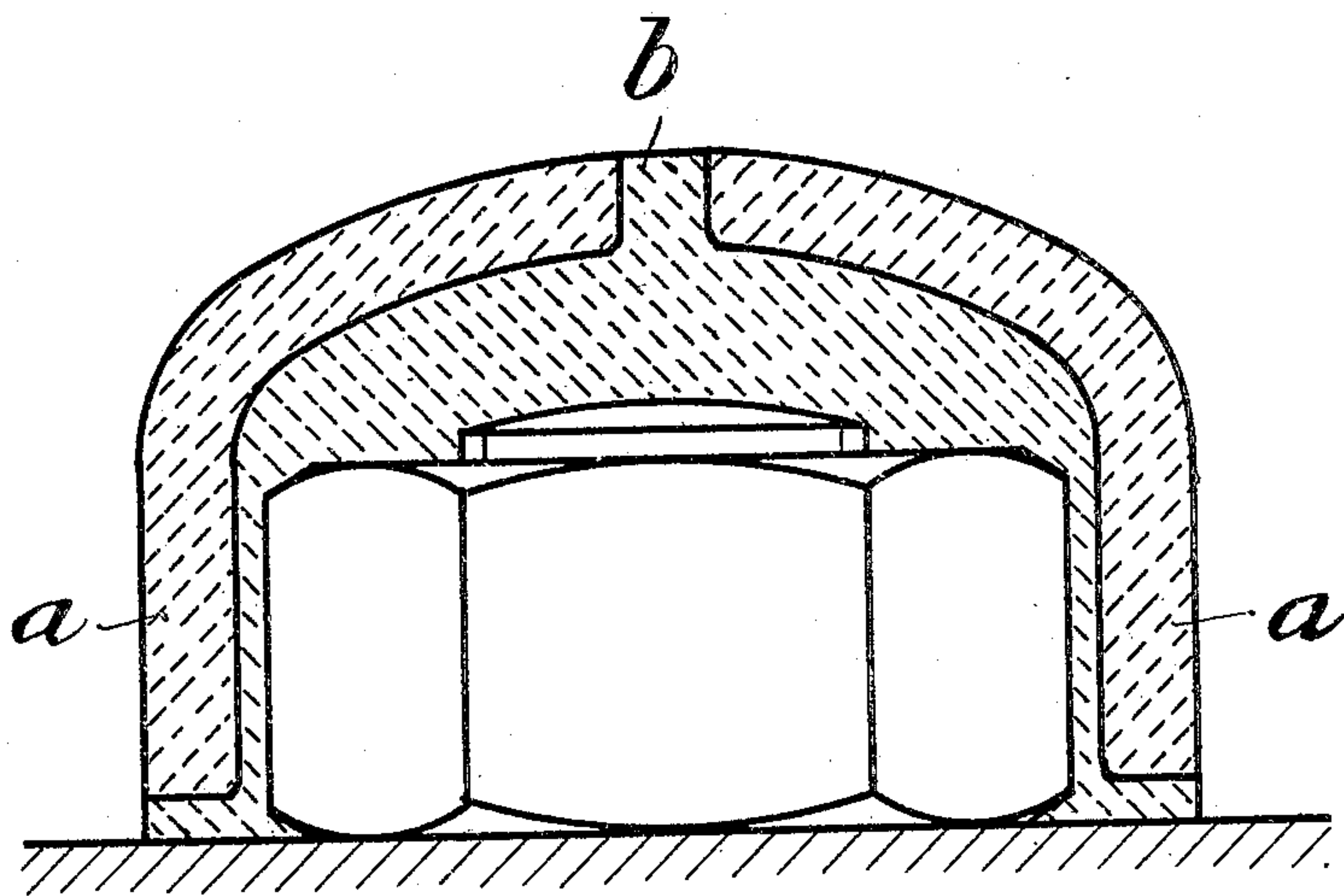


Fig. 2.

Witnesses

Emil Kipp
John R. Butler

Inventor

Paul. Fewson

UNITED STATES PATENT OFFICE.

PAUL FEWSON, OF HAMBURG, GERMANY.

MEANS FOR THE PROTECTION OF SCREW-NUTS.

No. 821,285.

Specification of Letters Patent.

Patented May 22, 1906.

Application filed May 29, 1905. Serial No. 262,928.

To all whom it may concern:

Be it known that I, PAUL FEWSON, a subject of the King of Prussia, German Emperor, and a resident of No. 9 Tresckowstrasse, Hamburg, in the Empire of Germany, have invented new and useful Improved Means for the Protection of Screw-Nuts, Rivets, and Bolt-Heads in Steam-Boiler Furnaces, of which the following is a specification.

10 The present invention relates to improved means for the protection of screw-nuts, rivets, and bolt-heads in the combustion-chamber of steam-boiler furnaces.

15 I will now proceed to describe my invention more fully, reference being had to the accompanying drawings, in which—

Figure 1 shows a section through the cap. Fig. 2 shows the method of employing the cap.

20 My improved means comprise, essentially, a cap made of fireproof material of any suitable known kind and of such a size and shape as to be enabled to receive within its interior the screw-nut, rivet, or bolt-head to be protected against the destructive influence of the flames or of the combustion-gases, respectively. The cap *a* of cylindrical or polyg-
25 onal shape in cross-section is provided, preferentially, in or about the center with a hole *b* for a purpose to be described later on.

30 In employing the cap its interior is filled with cement or similar quick-setting material, and the cap is thereupon pressed over the screw-nut, rivet, or bolt-head to be protected. The cement of pasty consistence is displaced by the intrusion of the screw-nut or the like and compelled to move outwardly, thereby filling and tightly closing the hole *b* and simultaneously causing a tight
40 joint to be created between the circumferential rim of the cap and the boiler-plates or furnace-walls. The excess of cement material can be taken off and used with the next caps. After the setting or hardening of the
45 cement material the screw-nut or the like contained within the cap is reliably guarded

against the detrimental effects due to the combustion of the fuel. The invention entails considerable advantages, seeing that the periodical renewal and control of the screw-nuts, &c., hitherto necessary, are obviated. Apart herefrom the saving in expenses hitherto due to repairs must be referred to.

I wish it to be distinctly understood that I do not confine myself to the exact shape and size of the cap shown in the accompanying drawings, as modifications in these respects may be effected without departing from the spirit of the invention.

I am aware that previous to my application steam-generator combustion-chamber or fire-box stay-bolt head or nut protecting devices have become known, consisting of a cap applied by coating the face of the flange and the interior surfaces of the body with adhesive or cementitious substance, which serves as the holding-on means of the protector. I therefore wish it to be distinctly understood that I do not lay claim to a cap for the purposes indicated *per se*, but in combination with the hole in its crown and the novel method of applying the cap, which insures the thorough expulsion of air from the cap, a complete filling of the latter with the cementitious substance, and the closure of the hole
75 in the crown.

What I do claim as my invention, and desire to secure by Letters Patent, is—

Improved means for the protection of screw-nuts, rivets and bolt-heads in steam-boiler furnaces, consisting in a cap of fireproof material for the reception of the screw-nut to be protected, said cap having a hole in its crown, substantially as described and shown and for the purpose set forth.

In witness whereof I have hereunto signed my name, this 10th day of May, 1905, in the presence of two subscribing witnesses.

PAUL FEWSON.

Witnesses:

E. H. L. MUMMENHOFF,
OTTO W. HELLMRICH.