W. FIRMAN.

ATTACHMENT FOR MINERS' CAPS.

APPLICATION FILED JAN. 17, 1908.

905,682. Patented Dec. 1, 1908.

Fig. 1.

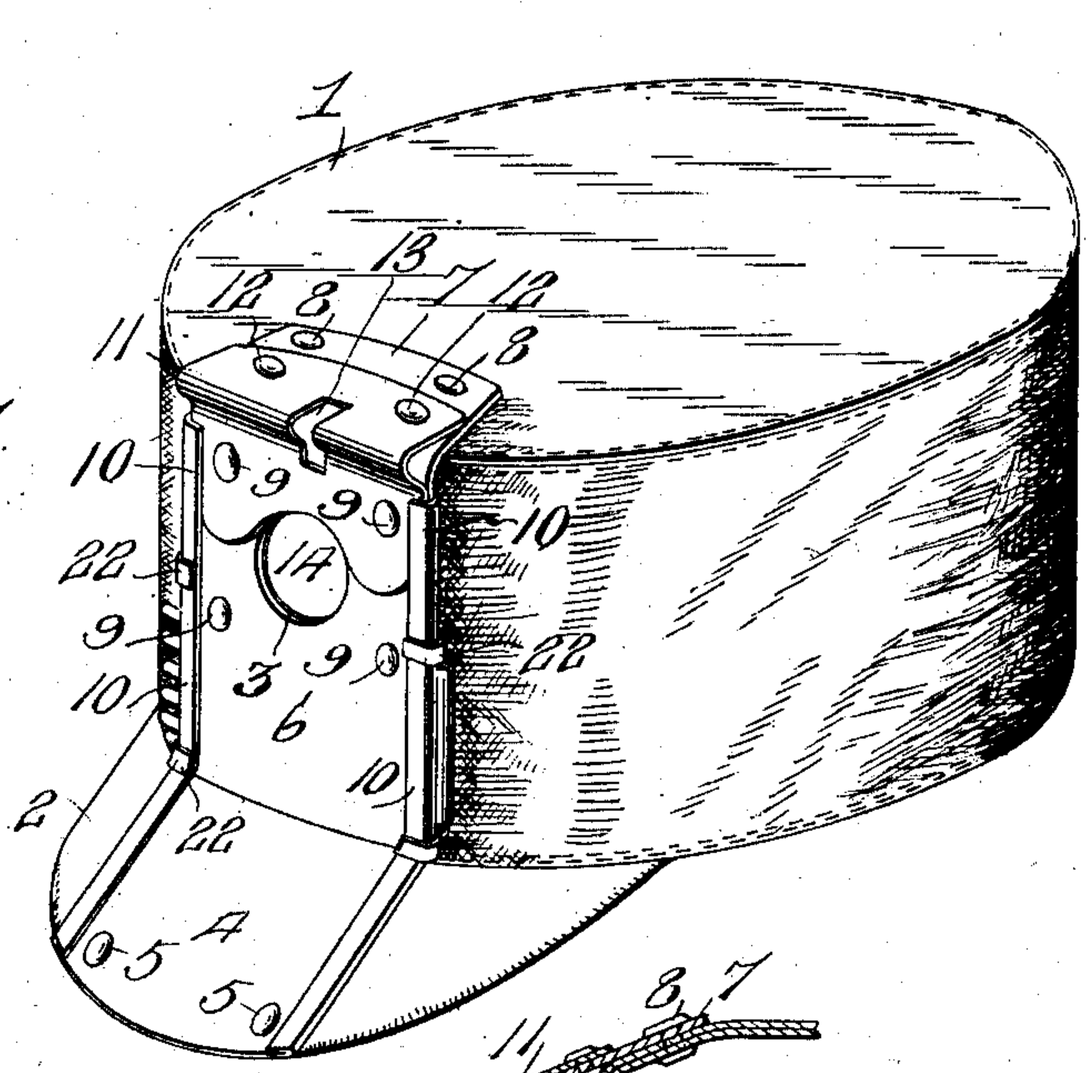


Fig. 3.

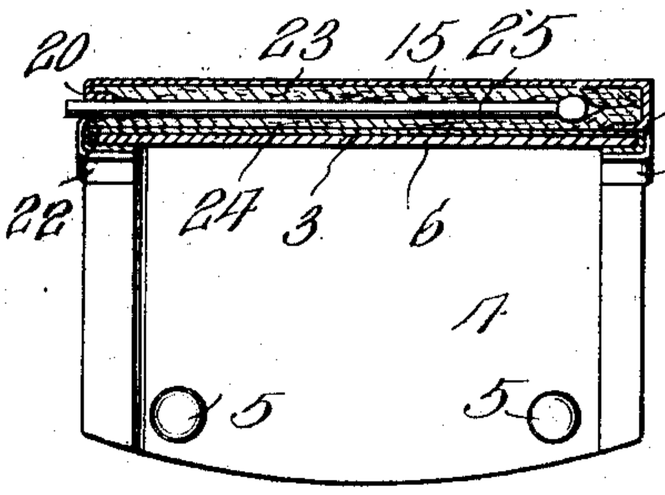


Fig. 2.

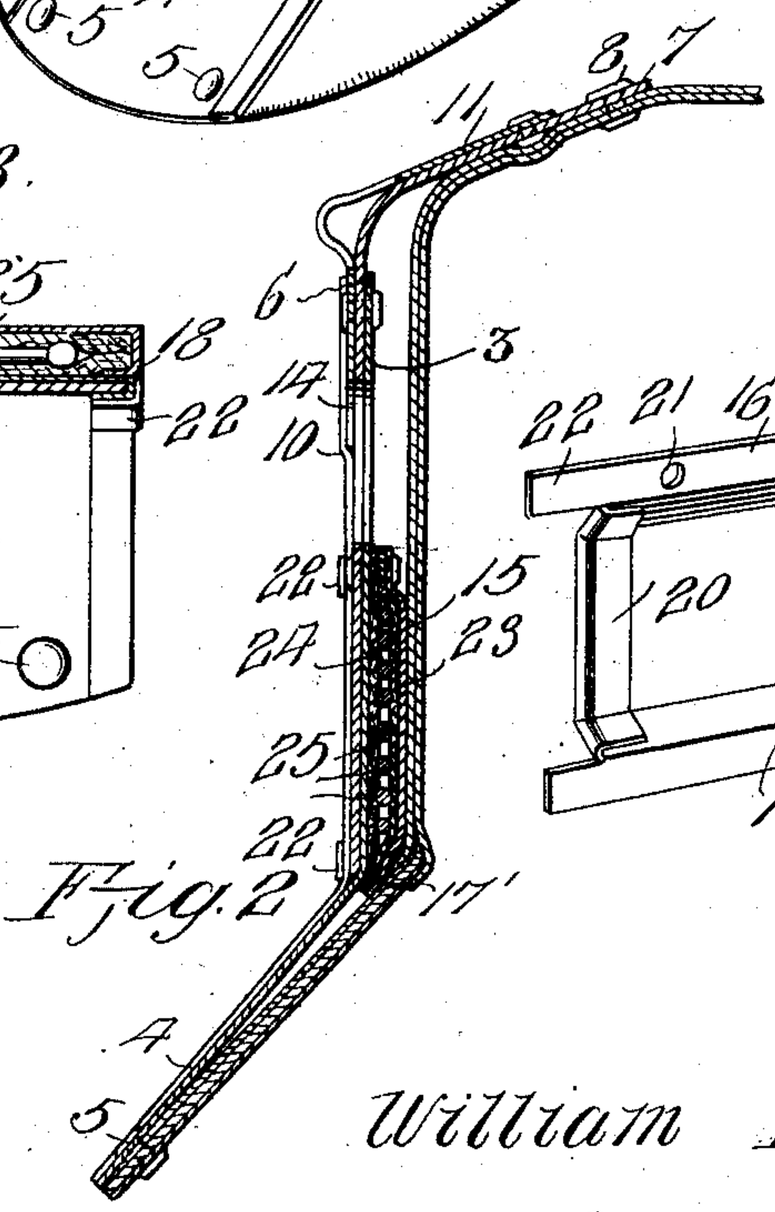
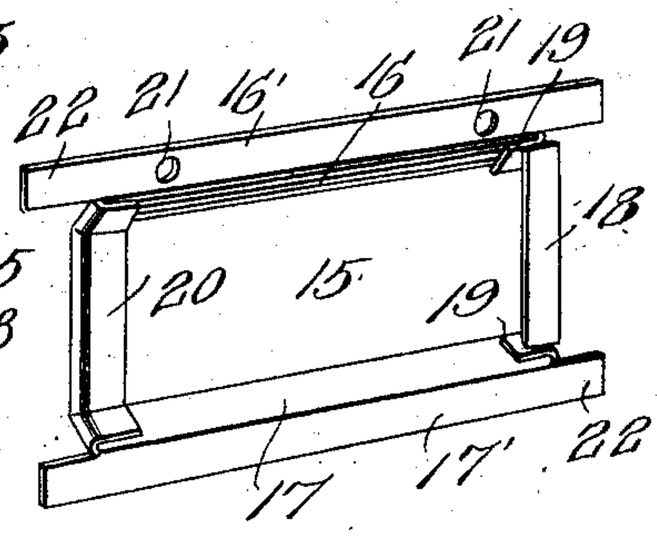


Fig. 4.



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ATTACHMENT FOR MINERS' CAPS.

No. 905,682. Specification of Letters Patent. Patented Dec. 1, 1908.

Application filed January 17, 1908. Serial No. 411,302.

To all whom it may concern:

Be it known that I, WILLIAM FIRMAN, a citizen of the United States, residing at Ottumwa, in the county of Wapello and State of Iowa, have invented new and useful Improvements in Attachments for Miners' Caps, of which the following is a specification.

This invention relates to an attachment for miners' caps, comprehending particularly a combined lamp support and match holder, the object of the invention being to provide a simple, inexpensive and effective device of this character which may be applied for use upon caps of the type employed, for supporting the lamp and holding a number of matches for convenient use, the construction being such as to admit of the ready application and removal of the matches and the protection of the same from the heat of the lamp.

The invention consists of the features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawing, in which:—

Figure 1 is a perspective view of a miner's cap having the improved lamp holder and match receptacle applied thereto. Fig. 2 is a vertical section through the front portion of the cap and the attachment on a line through the center of the vizor. Fig. 3 is a horizontal transverse section through the vertical portion of the attachment removed, the section being on a line through the match receptacle. Fig. 4 is a front perspective view of the plate forming the body of the match receptacle, as it appears prior to application.

Referring to the drawing, 1 designates a miner's cap of ordinary construction, provided with the vizor or shield 2. The attachment is disposed for use upon the front portion of the cap, and comprises a main or supporting plate 3 disposed vertically at the front of the cap and spaced a suitable distance therefrom, said plate having a downwardly and forwardly projecting extension 4 extending over upon the vizor and secured thereto by rivets or other suitable fastenings 5. A plate or strip 6 covers the body portion or vertical portion of the plate 3, and extends above the same and is provided at its upper end with a rearwardly bent attaching portion 7 which projects over upon the crown of the cap and is secured thereto by rivets or other suitable fastenings 8. This plate or strip 6 serves the function of a shield, being composed of some suitable material which is a non-conductor of heat, such as fiber. The said shield 6 is secured to the plate 3 by rivets or other suitable fastenings 9, and is also engaged at its edges by securing and reinforcing flanges 10 formed by forwardly and inwardly bending the longitudinal side edges of the plate 3, which flanges extend continuously along the length of said plate and along its lower attaching extension 4. The rivets 9 also serve to secure to the plate 3 and shield 6 the lower portion of a bracket 11, whose upper portion is disposed at right angles to said lower portion and secured to the extension 7 of the shield by fastening devices 12. At the angle of intersection of the two portions of the bracket a slot 13 is formed for the reception of a locking portion upon the miner's lamp, the slotted portion of the bracket being offset or projected forward to support the lamp in proper position. An opening 14 is formed in the vertical portion of the plate 3 and in the shield 6 to receive the portion of the lamp adapted to fit therein, by which the lamp may be retained securely in position. The lamp in practice lies in front of the shield 6, and the latter serves to prevent to a large extent the transmission of the heat therefrom to the forehead of the wearer as well as to prevent the transmission of heat to the interior of the match receptacle, the construction of which will now be described.

A plate 15 is disposed in the space between the front portion of the cap and the vertical portion of the plate 3 below the opening 14 and is arranged transversely of said plate 3 and corresponds substantially in length with the width thereof. The said plate 15 forms the rear wall of a match receptacle or chamber, the front wall of which is formed by the plate 3. At its upper and lower longitudinal edges the plate 15 is bent to form the forwardly and obliquely bent portions 16 and 17 and adjacent flanges 16′ and 17′, the upper and lower bent portions and flanges serving to form the upper and lower walls of the receptacle. At one end, the plate 15 is also provided with a forwardly and inwardly bent or flanged end piece 18, the flange or inwardly bent part of which lies against the rear surface of the plate 3, so that said part 18 will form a closed end wall for the receptacle. Adja-

cent the upper and lower edges of this wall the parts 16 and 17 are inwardly bent to provide clamping fingers 19, while at the opposite or open end of the receptacle the plate 15 and adjacent portions of the parts 16 and 17 are bent over to form a clip 20. The match receptacle is secured in position by means of the rivets 9 which pass through openings 21 in the flange 16′, and also by the use of spring fingers or clips 22 formed by extensions of the flanges 16′ and 17′, which clips are bent to engage the flanged edges 10 of the plate 3, as clearly shown in Figs. 1 and 2.

In order to provide a soft bed for the matches held within the receptacle, whereby the matches will be retained securely in position, prevented from shifting and also prevented from becoming accidentally lighted by frictional contact with the metal, layers 23 and 24 of flannel or other suitable material are disposed within the receptacle to form linings for the plates 3 and 15, and between which linings the matches are inserted. As shown, the linings are clamped at their upper edges between the parts 3 and 16′ and secured by the rivets 9 and their lower edges are clamped between the parts 17, 17′ and 4, and at their inner ends are fastened by the clips 19 at the closed end of the receptacle. The rear lining 23 is secured at its opposite end by the clip 20 to the wall 15, while the adjacent end of the lining 24 is cemented or otherwise fastened to the plate 3, thus preventing it from wrinkling and interfering with the insertion and free removal of the matches 25, which lie between the two folds or layers of fabric, as clearly shown in Figs. 2 and 3, and are thus securely retained in position and prevented from coming into contact with the metallic parts. The matches are inserted head first through the open end of the receptacle between the clip 20 and lining 24 so as to extend horizontally, a portion of their stems being allowed to project, as shown, to permit of their ready extraction one by one for use as desired.

It will be understood from the foregoing description that the invention provides a combined lamp supporting device and match receptacle in which the matches will be held and protected from accidental ignition, and yet may be readily removed for use by means of the thumb and forefinger of the miner. This affords a great convenience, as it is practically impossible in many instances for the miner to carry a box of matches upon his person. The construction of the device is such as to adapt its manufacture at a comparatively low cost, and it will be seen that it is so applied that it will form an effectual support for the lamp and secure retainer or receptacle for a number of matches.

Having thus fully described the invention, what is claimed as new is:—

1. A lamp holding attachment for miners' caps embodying a supporting plate, a match receptacle disposed upon the rear side of said plate, said receptacle being open at one end and closed at its opposite end and formed with upper and lower longitudinal flanges and an end flange at its closed end, such flanges bearing against the plate, and fingers formed upon the ends of the top and bottom flanges and bent into interlocking engagement with the side edges of the supporting plate.

2. A lamp holding attachment for miners' caps embodying a supporting plate adapted to be fastened at top and bottom to the front of the cap, a match receptacle disposed transversely upon the rear of said plate to lie between the same and the body of the cap, said receptacle being open at one end and closed at its opposite end and having upper and lower flanges, said flanges terminating in clips engaging the side edges of the plate, and a shield arranged to prevent transmission of the heat of the lamp through said plate to said receptacle.

3. A lamp holding attachment for miners' caps embodying a supporting plate, a match receptacle disposed upon the rear side of said plate, said receptacle being open at one end and closed at its opposite end and provided at its closed end with a flange and at its upper and lower edges with flanges, said flanges resting against the plate, and clips at the ends of the receptacle, means for securing the receptacle to the supporting plate, a lining of soft material clamped between the supporting plate and receptacle, and a second lining of flexible material engaged and retained by said clips.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM FIRMAN.

Witnesses:
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