

No. 897,588.

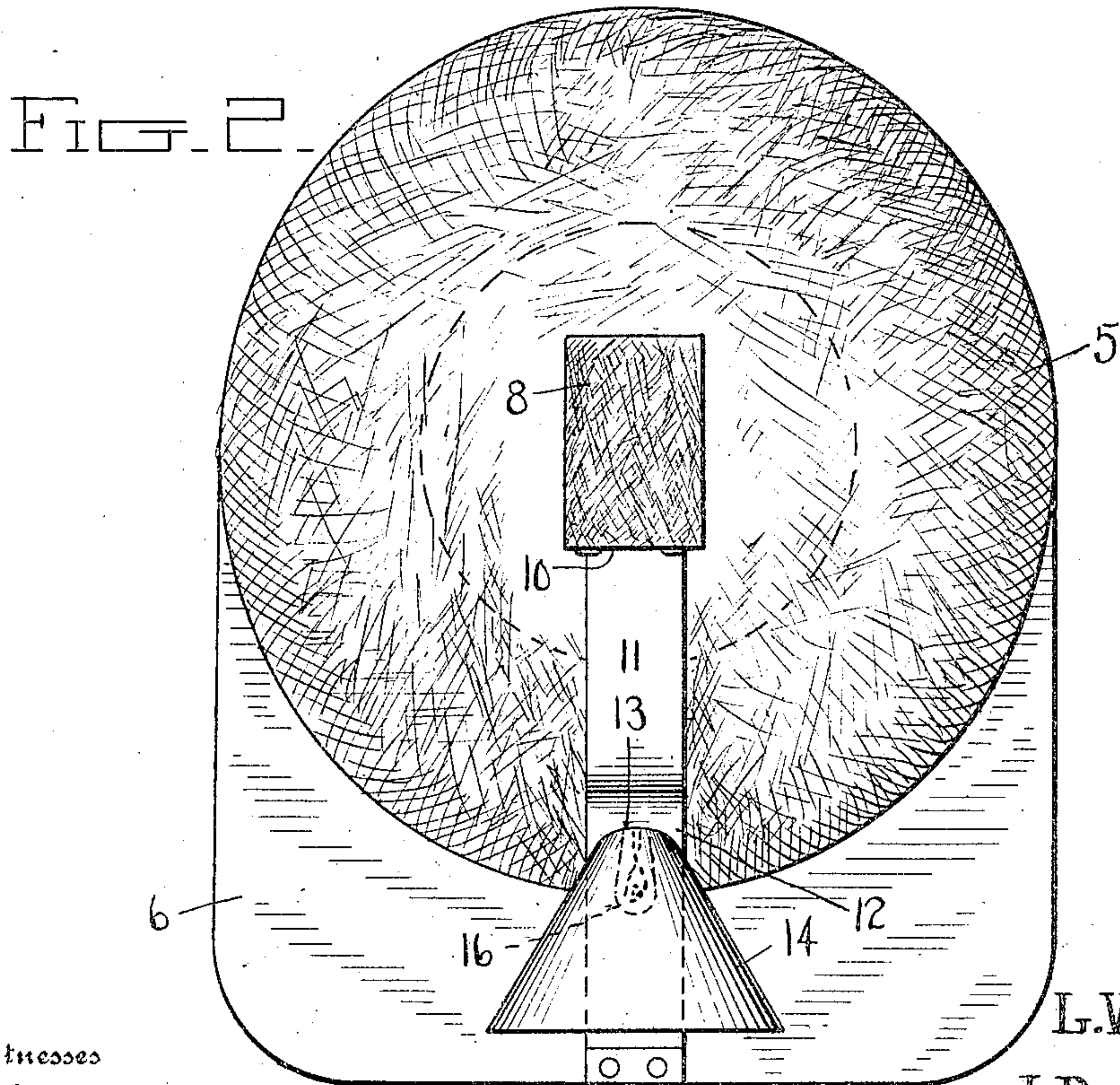
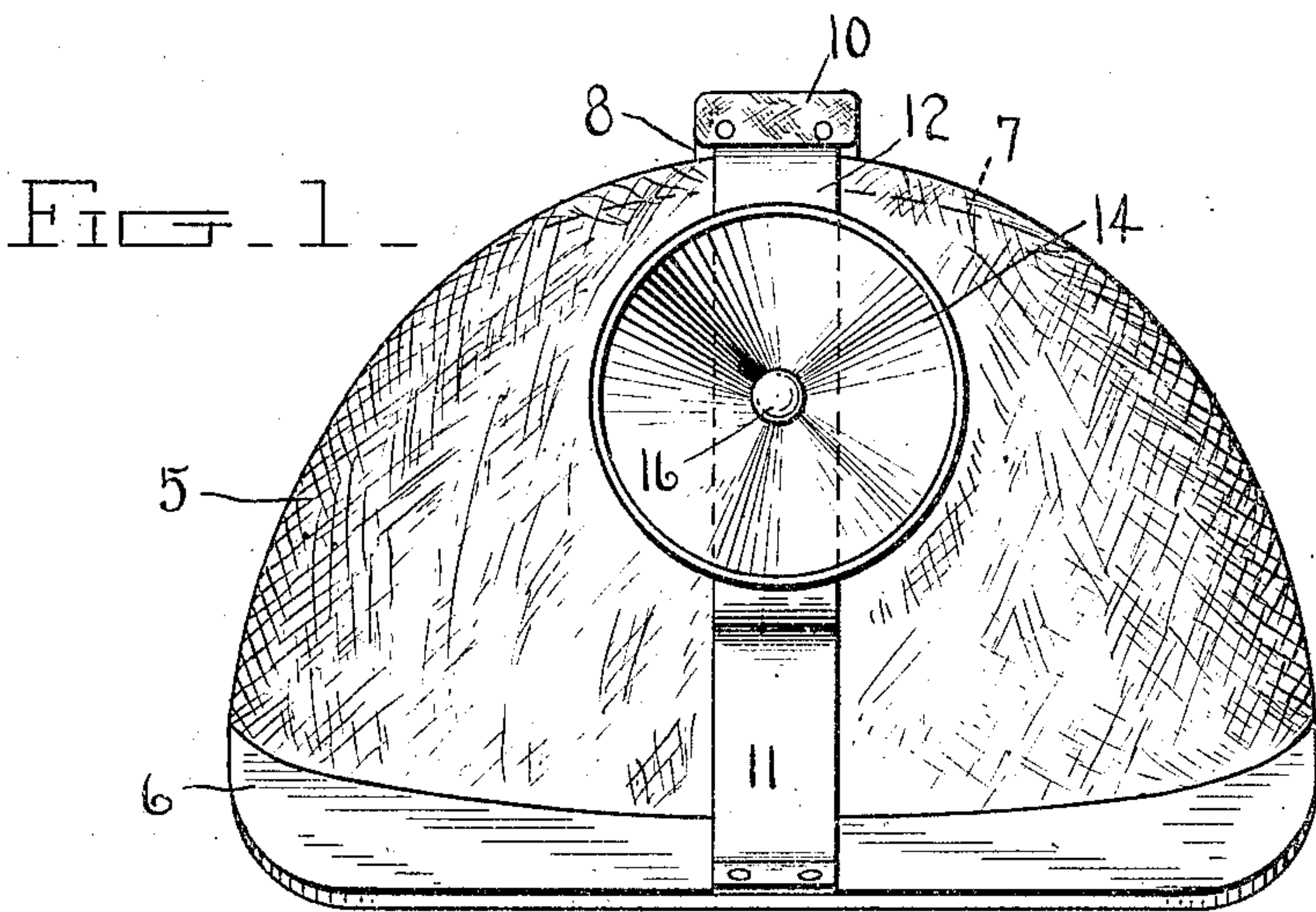
PATENTED SEPT. 1, 1908.

L. W. COGSWELL & J. D. ABEL.

MINER'S CAP AND LAMP.

APPLICATION FILED JAN. 31, 1908.

2 SHEETS—SHEET 1.



Witnesses
L. B. James
M. J. Miller

By

Charles Chandler

Attorneys

Inventors
L. W. Cogswell &
J. D. Abel

No. 897,588.

PATENTED SEPT. 1, 1908.

L. W. COGSWELL & J. D. ABEL.

MINER'S CAP AND LAMP.

APPLICATION FILED JAN. 31, 1908.

2 SHEETS—SHEET 2.

FIG. 3.

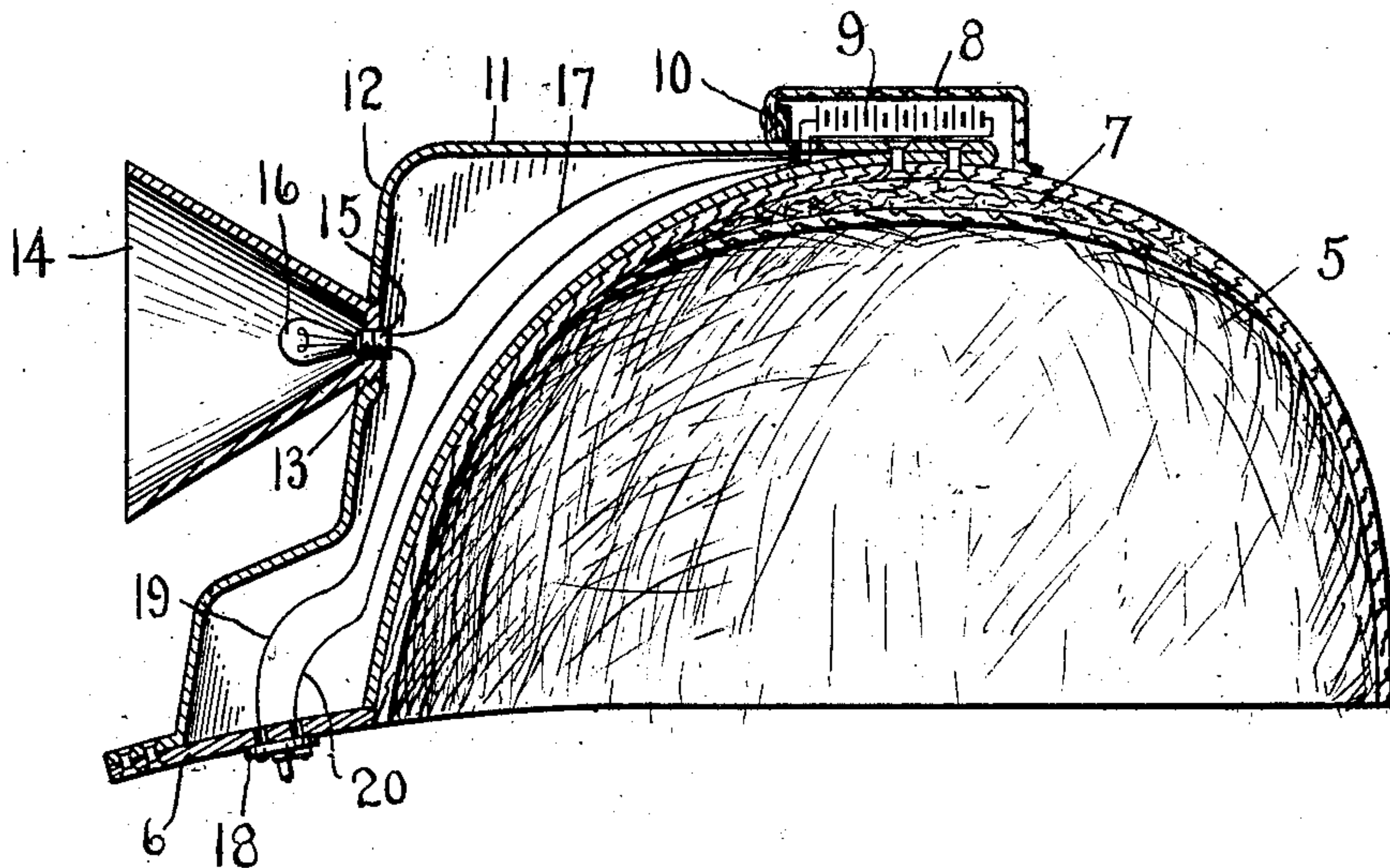
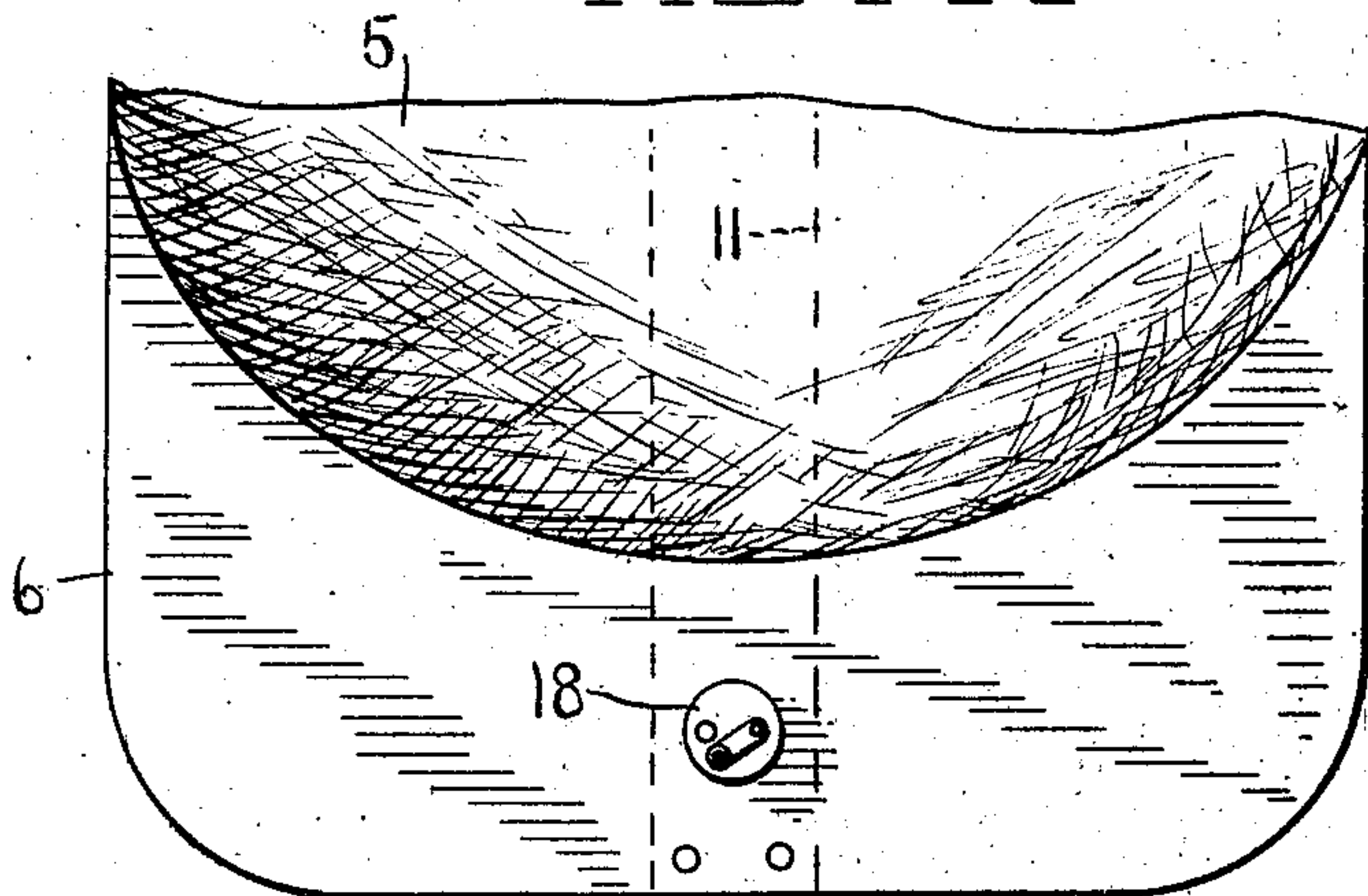


FIG. 4.



Witnesses

L. B. James
M. J. Miller

Inventors

L. W. Cogswell &
J. D. Abel

Charles Chandler

Attorneys

UNITED STATES PATENT OFFICE.

LEWIS W. COGSWELL AND JAMES D. ABEL, OF TAYLORVILLE, ILLINOIS

MINER'S CAP AND LAMP.

No. 897,568.

Specification of Letters Patent.

Patented Sept. 1, 1908.

Application filed January 31, 1908. Serial No. 413,719.

To all whom it may concern:

Be it known that we, LEWIS W. COGSWELL and JAMES D. ABEL, citizens of the United States, residing at Taylorville, in the county of Christian, State of Illinois, have invented certain new and useful Improvements in Miners' Caps and Lamps; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a miner's cap and safety lamp and has for its primary object to eliminate all chances of explosion of fire damp as far as such explosions are due to the lamps used by miners.

While the oil lamps now in use are theoretically safe, numbers of explosions have occurred through their use owing to rents or openings in the wire gauze cage surrounding the flame.

In carrying out our invention we employ instead of the usual oil lamp, an electric lamp and the novelty in our invention lies in the manner of fixing this lamp and the batteries and switch therefor upon the cap.

In the accompanying drawings, Figure 1 is a front elevation of the cap, Fig. 2 is a top plan view thereof, Fig. 3 is a vertical sectional view taken in a plane from front to rear, and, Fig. 4 is a bottom plan view of the front portion of the cap.

In the drawings the cap proper is indicated by the numeral 5 and its vizor by the numeral 6. The top or inner crown of the cap is padded as indicated at 7 and stitched to the outer crown or top is a pocket 8 in which are arranged dry batteries 9 of the storage type, these batteries being removable from the pocket by unbuttoning a flap 10 which forms a closure for the pocket. Secured by suitable rivets, at its front portion, to the vizor of the cap and throughout its rear portion to the cap proper is a sheet metal casing 11 which may be of any suitable contour except that its lower or cap attached edges are curved from front to rear to conform to the shape of the cap and render the cap comfortable to wear. This casing includes a vertical front wall 12 in which there is formed a threaded opening 13 for the reception of the small end of a flared interiorly polished sheet metal frusto conical reflector 14 there being a socket 15 fitted in the said end of this reflector for the reception of an electric lamp 16. A wire 17 leads from one pole of

the battery 9 to one contact of the lamp socket and leading from the other contact of the socket to a switch 18 is a wire 19, the other contact of the switch and the other pole of the battery being connected electrically by means of a wire 20. This switch 18 is fixed upon the under side of the vizor 6 and consequently may be readily reached by the wearer of the cap to switch the light on or off. The wires above mentioned are led through the casing and are inclosed thereby, the lamp, the reflector, and the switch being the only elements exposed.

From the foregoing description of our invention it will be seen that the batteries, although light in weight are supported upon a pad and that the casing for the wiring and for the attachment of the lamp and reflector is not only light in weight but is so curved or formed as to be perfectly comfortable to the wearer of the cap. The casing, as shown, has a bottom portion conforming to the shape of the cap, which ends at the upper crown of the cap, and is then bent back, to form a base of double thickness, upon which the battery is carried. The casing is then continued outward and downward, and finally secured to its vizor.

What is claimed, is:—

A miner's cap having a vizor, in combination with a pad secured to the inner crown of the cap, a sheet metal casing having a bottom portion conforming to the shape of the cap and ending at the upper crown of the cap and then being doubled upon itself to form a base of double thickness, the upper portion of the casing being bent outward and downward, and secured to the vizor of the cap, the forward vertical portion of said casing having a threaded opening, a frusto-conical reflector within said opening, a lamp carried by said reflector, a fabric pocket having a flap secured to the outer crown of said cap inclosing said base, a battery upon said base and within said pocket, an electric switch secured to the under surface of said vizor, and electric conductors connecting said switch, lamp and batteries.

In testimony whereof, we affix our signatures, in presence of two witnesses.

LEWIS W. COGSWELL.
JAMES D. ABEL.

Witnesses:

WM. A. MILLER,
O. B. BRITTON.