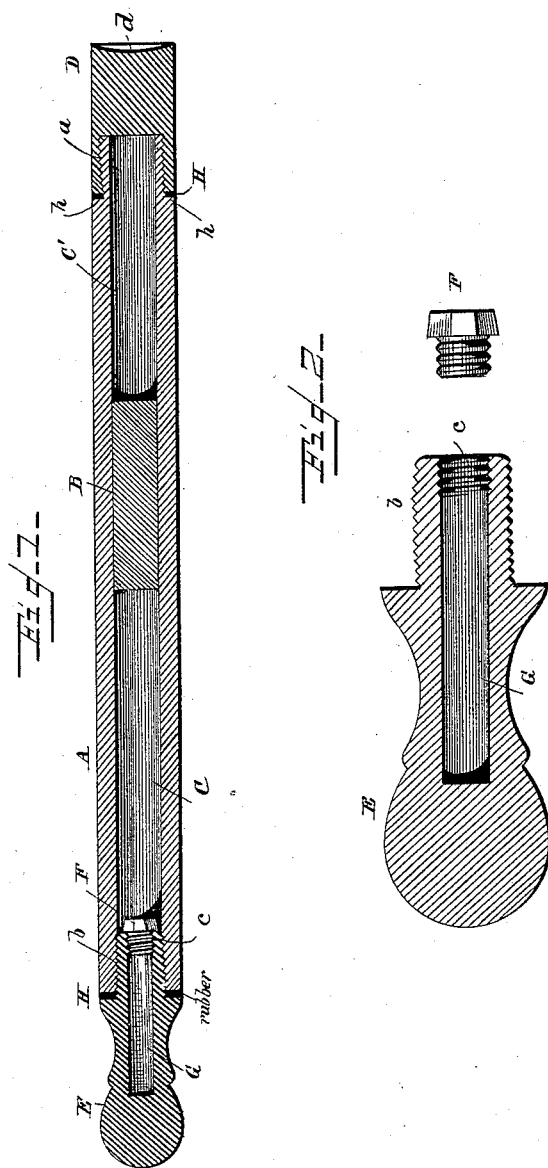


(No Model.)

J. D. WILLIAMS.
MINER'S SQUIB BOX, &c.

No. 346,834.

Patented Aug. 3, 1886.



Witnesses

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UNITED STATES PATENT OFFICE.

JEHU D. WILLIAMS, OF DENTON, KENTUCKY.

MINER'S SQUIB-BOX, &c.

SPECIFICATION forming part of Letters Patent No. 346,834, dated August 3, 1886.

Application filed June 15, 1886. Serial No. 205,914. (No model.)

To all whom it may concern:

Be it known that I, JEHU D. WILLIAMS, a citizen of the United States, residing at Denton, in the county of Carter and State of Kentucky, have invented certain new and useful Improvements in Miners' Cartridge-Pin, Squib, Match, and Paper Box Combined; and I 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.

Miners and others who from the nature of their employment are required to have about them matches, squibs or fuses, and cartridge-paper are frequently subjected to annoying and expensive delays by reason of the matches, squibs, or paper becoming damp and failing to ignite, thus requiring them to leave their work to procure a fresh supply; also, it often happens that the stick on which the cartridge is formed is crooked or knotted, so that the cartridge is spoiled, a round smooth straight stick or rod being necessary to properly form the cartridge, so that the cartridge will not be torn by withdrawing the stick from the same. Now my invention is intended to overcome the above annoyances and provide a miner's cartridge-pin, squib, match, and paper box combined which will be simple, durable, water-proof, and convenient; and it consists in the parts and combinations of parts hereinafter described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a longitudinal sectional view of my device, and Fig. 2 a detail sectional view of the match-box and a side view of its stopper or plug.

Similar letters refer to similar parts in both views.

A represents a metal or wooden tube or cylinder of any desired size in diameter and length. At a suitable distance from the ends of this tube or cylinder (and within the same) a partition, B, is fitted, thus forming two chambers, C C', in the tube, the former for squibs and the latter for the paper to make the cartridges.

As above stated, the tube may be of wood,

in which case the chambers or receptacles C C' will be formed by boring or turning in any suitable manner, while if made of metal the partitions may be soldered in position. The tube A is reduced at one end, as at *a*, and screw-threads formed on its outer surface, on which an interiorly-screw-threaded cap, D, is screwed to close this end of the tube, a rubber washer, H, being first placed around the reduced end next to shoulder *h*, so as to form a water-proof joint. At its opposite end the tube is provided with screw-threads on its interior surface, as at *b*, for a short distance, into which screws the threaded and reduced end of the cap or plug E, a rubber washer, *h*, being first placed on said reduced end to effect a water-tight joint at this point also. The plug E is hollowed out sufficiently to accommodate a number of matches, and is provided with interior screw-threads, *c*, into which the threaded stopper or cap F screws to close the chamber formed in said plug E. The cap D is slightly dished or concave at its outer end, at *d*, for a purpose which will be described.

To further secure absolute protection to the squibs, matches, and paper against dampness, I coat the entire tube and caps D E with a suitable water-proof paint or varnish.

To form a cartridge, the miner wraps the paper around the tube, leaving about an inch of the paper projecting beyond the end of cap D, and then crimps the paper over the concave and gives it a smart rap with the palm of the hand or against any hard substance, thus forming a neat and close bottom for the end of the cartridge, through which the powder cannot readily escape. It will be seen that I thus provide a pin on which a cartridge may be rapidly and neatly made, a match-box, and paper and squib receptacles in which these articles are wholly removed from all liability to be rendered useless through the damp atmosphere of mines, the whole being conveniently and compactly arranged in a small space.

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

1. The hereinbefore-described water-proof

cartridge-pin, match, squib, and paper box
combined, consisting of the tube A, having
the reduced and screw-threaded end *a*, the
interior screw-threaded end, *b*, partition B,
5 threaded cap D, having the dished or concave
end, the hollowed and threaded plug E, stop-
per F, and rubber washer *h*, the whole being
coated with a water-proof composition, sub-
stantially as set forth.

10 2. The combination of the tube A, having

the chambers C C', the cap D, having the con-
cave end, the hollow plug E, stopper F, and
rubber washers *h*, substantially as described.

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

JEHU D. WILLIAMS.

Witnesses:

L. C. HAWS,
JOHN B. DAY.