

UNITED STATES PATENT OFFICE.

THOMAS SHAW, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CARTRIDGES FOR GUNPOWDER-HAMMERS.

Specification forming part of Letters Patent No. **147,872**, dated February 24, 1874; application filed March 13, 1873.

To all whom it may concern:

Be it known that I, THOMAS SHAW, of the city and county of Philadelphia, Pennsylvania, have invented a new and Improved Coating or Covering for Holding Powder, &c., for Shaw's Gunpowder-Hammer; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention consists in the surrounding of the powder with a vegetable, animal, or metallic envelope, for the purpose as hereinafter described. The object of the invention is to prevent the ignition of the powder before it is struck by the hammer, and to protect the powder from moisture, and to enable the use of small powder by the employment of the metallic coating, all for the purpose as hereinafter described.

In order to more fully explain the object of this invention, it is important to mention that, in the working of the gunpowder-hammer, there are sparks left in the gun after each explosion, which will ignite the inserted powder before the entrance of the ram or hammer, which is fatal to the proper working of the machine. It is, therefore, very important that the powder does not explode until the cartridge is crushed by the sudden entrance of the ram, when the maximum effect is realized.

It is to remedy this defect that this covering or coating of the powder was provided, which enables the covered powder to lie upon hot sparks for a period of ten seconds, more or

less, without ignition, during which time the hammer will have reached and crushed the coating or covering, exposing the powder to the highly-heated air and sparks, which ignite and explode the powder, with its attending results.

It will be observed that it is best that the materials employed in covering the powder be water-proof, as the soda powder employed is deliquescent, absorbing moisture, which injures the explosive property of the powder. A resinous or greasy material or tin-foil coating is best suited for the purpose.

It is evident that various materials can be substituted for the described coating, and that the shape of the coating or covering may be variously fashioned without any alteration in the result. I therefore do not wish to confine myself to the materials employed, or to the shape of the same.

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

The improved coated cartridge herein described, suitable for operating gunpowder-hammers and preventing premature explosions, consisting of a charge of gunpowder, or other explosive material, covered with a temporary protection against ignition, as and for the purpose set forth.

THOMAS SHAW.

Witnesses:

HECTOR ORR,
JAMES KEENAN.