No. 821,829. PATENTED MAY 29, 1906.

E. PORTER

ROPE AND ROPE SOCKET PROTECTOR.

APPLICATION FILED APR. 29, 1905.

Fig. 1.

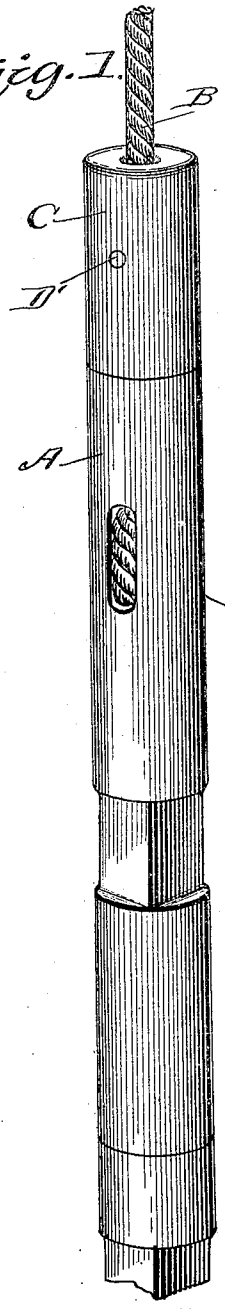


Fig. 2.

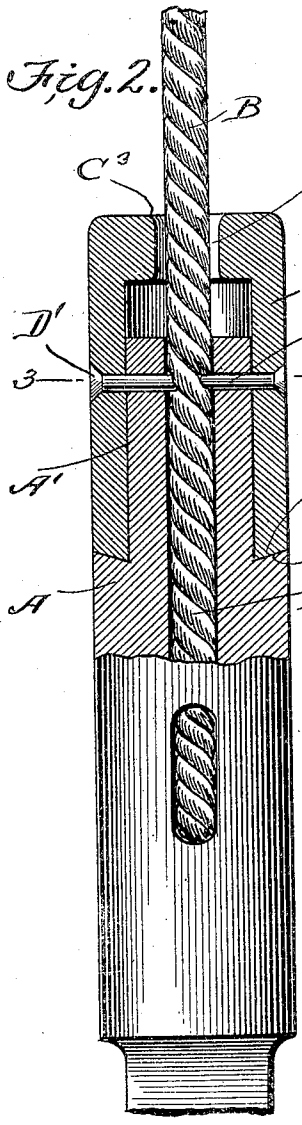


Fig. 4.

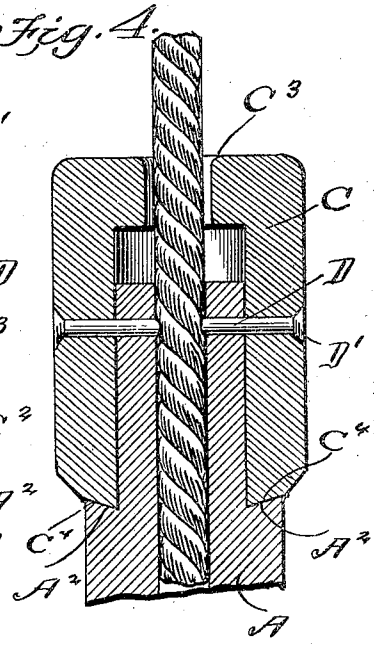


Fig. 5.

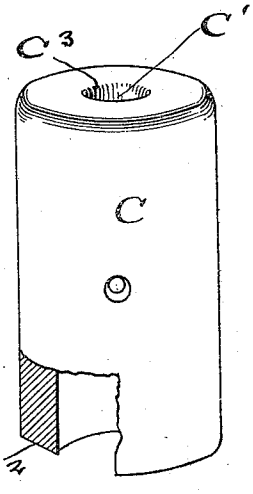
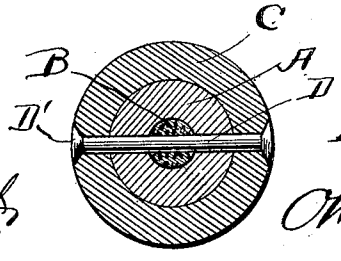


Fig. 3.



WITNESSES:

M. D. Blondel.

C. B. McBath.

INVENTOR

Ernest Porter.

BY

Howard Brock

ATTORNEYS

ANDREW B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ERNEST PORTER, OF MONTICELLO, KENTUCKY.

ROPE AND ROPE-SOCKET PROTECTOR.

No. 821,829. Specification of Letters Patent. Patented May 29, 1906.

Application filed April 29, 1905. Serial No. 258,113.

To all whom it may concern:

Be it known that I, ERNEST PORTER, a citizen of the United States, residing at Monticello, in the county of Wayne and State of Kentucky, have invented a new and useful Improvement in Rope and Rope-Socket Protectors, of which the following is a specification.

This invention relates generally to well-drilling devices, and more particularly to a rope and rope-socket protector, the object being to provide the ordinary rope-socket with a protector which will protect the said socket while drilling past tools or in the act of using a bumper to knock tools loose when they become fastened; and another object of the invention is to protect the rope from being bumped off, which is often the case with the ordinary construction of rope-socket devoid of a protector.

Another object of the invention is to provide a protector which can be used with either hemp or wire cables; and a still further object is to provide a protector of such construction that in case of heavy pounding the said protector will not work over the upper portion of the rope-socket.

With these various objects in view my invention consists in the details of construction hereinafter fully described, and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a perspective view of a rope-socket and rope provided with a protector constructed in accordance with my invention. Fig. 2 is a view, partly in section and partly in elevation, showing the relative positions of the rope, socket, and protector. Fig. 3 is a sectional view on the line 3 3 of Fig. 2. Fig. 4 is a sectional view of a slightly-modified form of protector. Fig. 5 is a detail perspective view of the protector, one edge being broken away.

Referring to the drawings, A indicates a rope-socket to which the rope B is connected in the usual manner, the rope and socket both being of the ordinary or usual construction. The upper portion of the rope-socket is reduced, as shown at A′, thereby providing an annular shoulder A^2, and it will be noted that the face of this shoulder is beveled, so that its outer edge is higher than its inner edge.

C indicates the protector, which is in the form of a metal sleeve, steel or iron being used, as preferred, and this sleeve is of such internal diameter as to fit snugly upon the reduced portion of the rope-socket, and its lower end is beveled, as shown at C^2, in order to fit firmly upon the beveled shoulder A^2. The rope passes out through the top opening C′, and it will be noted that the edges of said opening are rounded, as shown at C^3, so as to prevent wearing the rope, which passes through the said hole. It will be noted that the protector is of such a length that the top thereof rests a considerable distance above the top of the rope-socket, thereby avoiding any possibility of pounding of the upper end of the socket, and the protector is made to rest entirely upon the beveled shoulder of the socket. A rivet D is passed through entirely the protecting-sleeve, the rope-socket, and the rope and headed down at each end, as shown at D′, the protector being provided with countersunk portions to receive the said heads. By means of this construction the rope, socket, and protector are thoroughly connected to each other.

In Fig. 4 I have shown the protector of an external diameter greater than the external diameter of the rope-socket; but it will be noted that the lower end of the protector is beveled, as shown at C^4, and fits upon the beveled shoulder A^2 of the socket in exactly the same manner. This form of protector is used when drilling a large hole, inasmuch as it serves to steady the tools and keep them from jumping from side to side, as would occur were it attempted to drill a large hole with a smaller-sized socket or protector.

By means of a protector constructed in accordance with my invention both the rope and socket are protected, particularly during what is known as the "bumping" operation, as heretofore it was very often necessary to replace the socket owing to the damage done thereto during the bumping operation. All strain and damage, which heretofore has been sustained entirely by the rope-socket, will now be directed upon the protector and being constructed of steel is well able to stand said damage and strain, and all damage of the rope and socket is entirely avoided.

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

1. A protector comprising a metallic sleeve adapted to rest upon the upper end of a rope-socket and connected thereto and to the rope, as set forth.

2. A rope and rope-socket protector consisting of a steel sleeve closed at its upper

end, said closed end having a central opening produced therein, the edges of which are rounded and means for connecting the protector to the rope and rope-socket for the purpose set forth.

3. The combination with a rope-socket having an annular shoulder of a protector-sleeve surrounding the upper end of the rope-socket and resting upon the annular shoulder and means for connecting the socket and protector-sleeve as set forth.

4. The combination with a rope-socket having a beveled annular shoulder, of a protector-sleeve having a beveled lower end adapted to rest upon the beveled shoulder of the socket, the rope fixed in the socket and a rivet passing through the rope, socket and protector-sleeve, substantially as described.

ERNEST PORTER.

Witnesses:
J. M. VINCENT,
SYLVAN BORDES.