(No Model.)

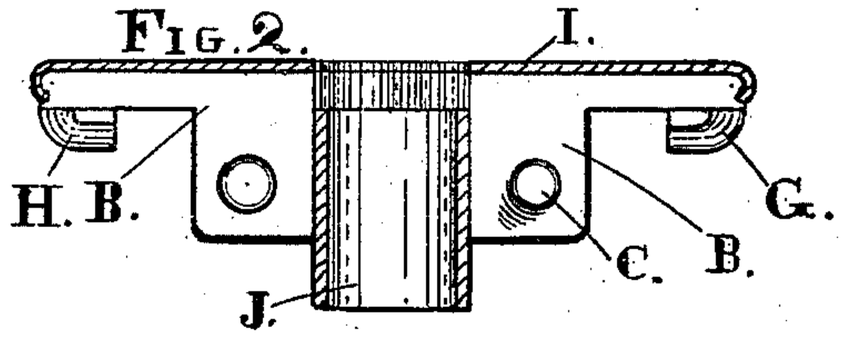
B. GIOVANNI.

HAND GUARD FOR ROCK DRILLS.

No. 395,700. Patented Jan. 8, 1889.

FIG. 1.

FIG. 2.



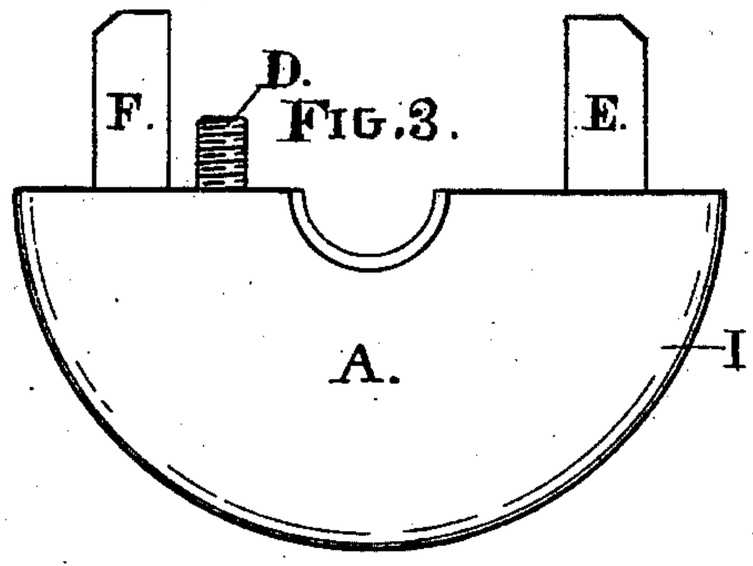


FIG. 3.

FIG. 4.

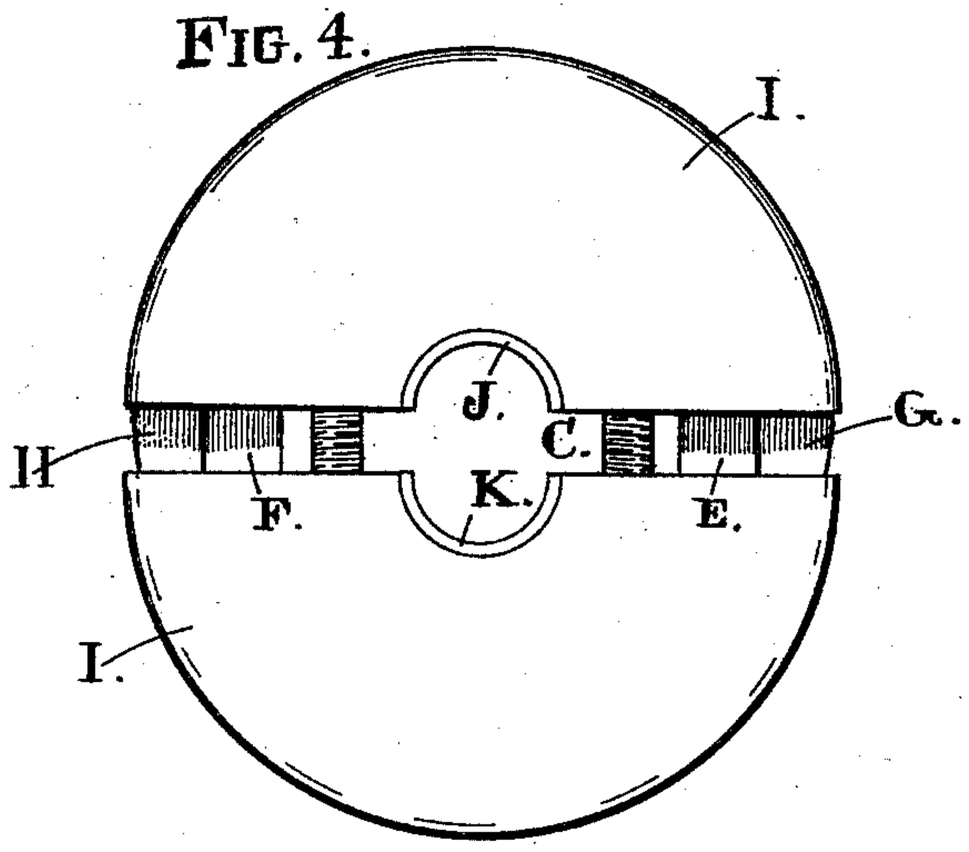
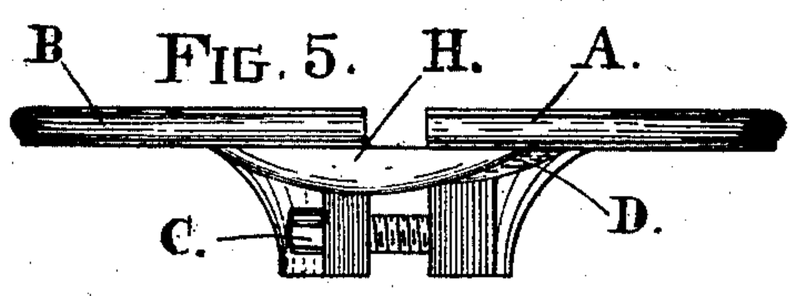


FIG. 5.



ATTEST.

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BALZARINI GIOVANNI, OF SAN FRANCISCO, CALIFORNIA.

HAND-GUARD FOR ROCK-DRILLS.

SPECIFICATION forming part of Letters Patent No. 395,700, dated January 8, 1889.

Application filed March 27, 1888. Serial No. 268,684. (No model.)

To all whom it may concern:

Be it known that I, BALZARINI GIOVANNI, a citizen of the Kingdom of Italy, and a resident of the city and county of San Francisco and State of California, have invented certain new and useful Improvements in Hand-Guards for Rock-Drills, of which the following is a specification.

My invention relates to improvements in hand-guards for rock-drills, which will be understood by reference to the accompanying drawings, and the letters referring thereto.

Figure 1 is a perspective view of a rock-drill with my improvement attached; Fig. 2, an elevation showing one half of the guard with the cushion cut through the center; Fig. 3, a plan view of the other half of the guard with the half of the cushion in place upon the same; Fig. 4, a plan view of my hand-guard, showing the cushion in halves in position upon the two parts of the hand-guard, which are open to show the bolts and guides; Fig. 5, an elevation showing the hand-guard the same as in Fig. 4, except that the cushion is removed.

A and B represent the halves of the hand-guard; C and D, the bolts; E and F, the inner guide for connecting the parts of the guard; G and H, the outer guide for the same; I, the cushion to receive the blow of the hammer; J and K, the washer to form an elastic bearing for attaching the guard to the drill.

L represents the drill.

The following is the construction of my improved hand-guard.

I cast the guard in halves A and B, to fit a large-sized drill with a thin washer, J and K, and when a smaller drill is used I employ a thicker washer, which is composed of rubber, similar to garden-hose, or other elastic washers, which I cut in halves, or form to fit the concave of the guard. I form the guides E, F, G, and H to bring the halves A and B together at the exact point to receive the bolts C and D, by which I unite the two parts A and B.

The following is the operation of my improved hand-guard. I place the same upon the drill at the required point to properly guard the hands. If the drill be large enough to nearly fill the space in the guard, a thin washer, J and K, is employed; but when the drill is smaller a thicker washer is employed to fill the space.

In drilling, the hammers are brought down upon the head of the drill, which is being held by the hand. When the hammer glances from the head of the drill, the hands are protected by the guard, which receives the blow upon the cushion I, which is placed upon the guard by bringing it down from the top of the drill and stretching it over the top of the guard, the outer edge being curled under to fit the outer edge of the guard. It is by means of the outer rim kept in place.

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

1. In safety-guards for rock-drills, the guard composed of the parts A and B, having the guides E, F, G, and H, in combination with the washer J and K and bolts C and D, for the purpose of attaching to rock-drills and guarding the hands, substantially as and for the purposes set forth.

2. In combination with a rock-drill, L, the guard described, composed of the parts A and B, guides E, F, G, and H, bolts C and D, cushion I, and washer J and K, for the purpose of protecting the hands in drilling rock, constructed and operated substantially as and for the purposes set forth.

BALZARINI GIOVANNI.

Witnesses:
JOHN H. REDSTONE,
K. B. REDSTONE.