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PATENTED DEC. 11, 1906.

E. M. KINSELLA.

GUIDING APPLIANCE FOR DRILLING MACHINES.

APPLICATION FILED AUG. 24, 1905.

FIG. 1

FIG. 2

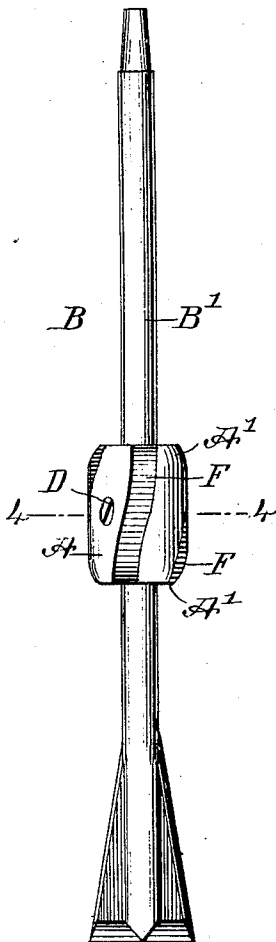


FIG. 3

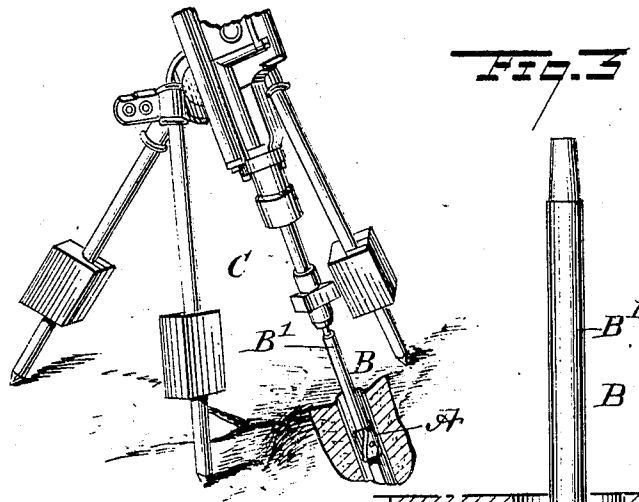
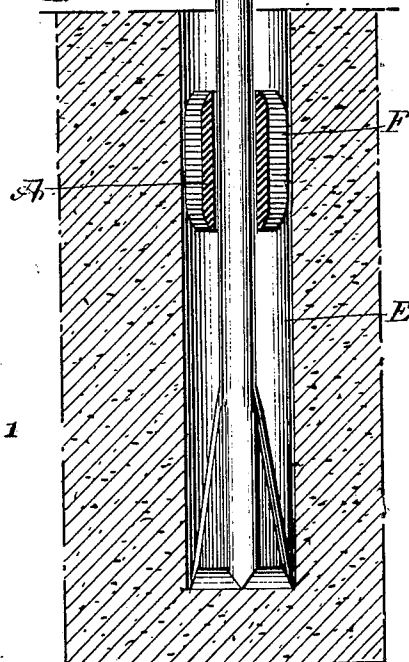
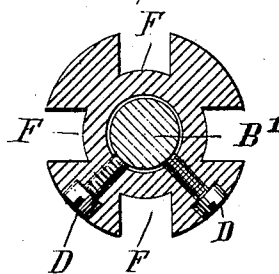


FIG. 4



WITNESSES:

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GUIDING APPLIANCE FOR DRILLING-MACHINES.

No. 838,339.

Specification of Letters Patent.

Patented Dec. 11, 1906.

Application filed August 24, 1905. Serial No. 275,605.

To all whom it may concern:

Be it known that I, EDWARD MAURICE KINSELLA, a citizen of the United States, and a resident of Bisbee, in the county of Cochise and Territory of Arizona, have invented a new and Improved Guiding Appliance for Drilling-Machines, of which the following is a full, clear, and exact description.

The invention relates to hand and power drilling-machines; and its object is to provide a new and improved guiding appliance for guiding the drill-bit of the machine in the drill-hole to allow easy working of the drill-bit in seamy or fitchety ground and to permit ready escape of the sand, dirt, or other borings from the drill-hole.

The invention consists of novel features and parts and combinations of the same, which will be more fully described hereinafter and then pointed out in the claim.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improvement as applied to a power drilling-machine. Fig. 2 is an enlarged side elevation of the improvement in position on the drill-bit. Fig. 3 is a like view of the same in position in the drill-hole, and Fig. 4 is an enlarged sectional plan view of the same on the line 4 4 of Fig. 2.

The guiding appliance is in the form of a tubular guiding-block A, removably and adjustably secured on the shank B' of the drill-bit B of a hand or power drilling-machine C, by the use of one or more countersunk set-screws D or other fastening devices disposed in any suitable relation to said shank B'. The guiding-block A has its ends A' rounded off to allow easy up-and-down movement of the block A in the drill-hole E on reciprocating the drill-bit B in the usual manner.

The peripheral face of the block A is pro-

vided with grooves F, extending from one end of the block to the other and preferably in a slightly curved or spiral form, as plainly shown in Fig. 2, the said grooves permitting ready passage or escape of the sand, dirt, or other borings in the drill-hole and without requiring the removal of the drill-bit from the drill-hole. The spiral arrangement of the grooves in the block also prevents the formation of flutes or ridges in the drill-hole, which flutes or ridges would interfere with the free turning of the said block, and thereby of the drill; but by means of the spiral grooves all liability of the block sticking in the drill-hole is avoided.

When the device is in use, the guiding-block A readily guides the drill in the drill-hole, and thus prevents the drill from sticking, especially when boring in seamy or fitchety ground, it being understood that the diameter of the guiding-block A is somewhat less than the diameter of the drill-hole E. It will further be seen that on loosening the set-screw D the guiding-block A may be readily moved up or down on the shank B' of the drill-bit, so as to bring the guiding-block in proper position for the purpose above mentioned.

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

A guiding appliance for drilling-machines, comprising an elongated block having a central opening and rounded ends and provided on its periphery with a plurality of spiral grooves extending from end to end of the block, and with means for rigidly and adjustably securing it to a drill-rod.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD MAURICE KINSELLA.

Witnesses:

LELAND S. GAMBLE,
A. C. DOWNS.