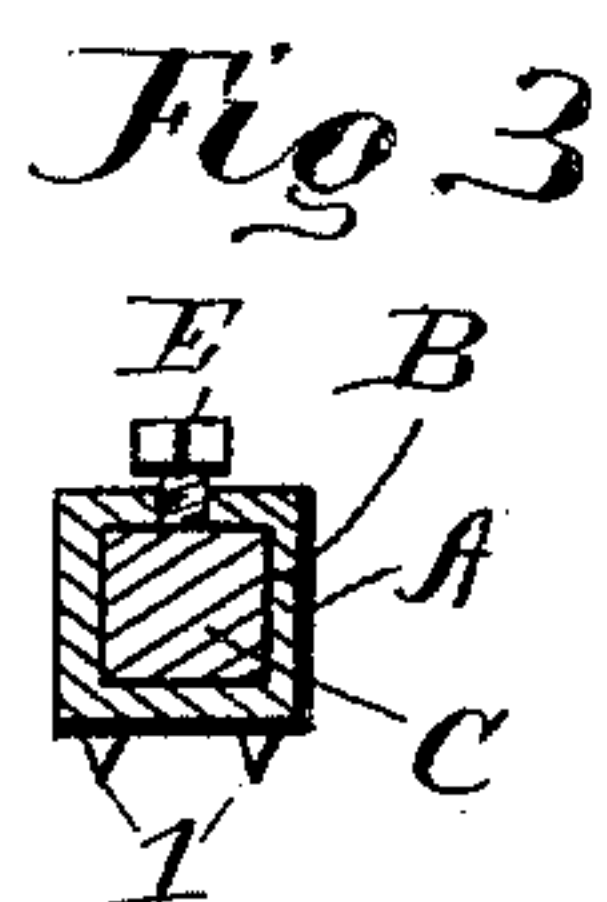
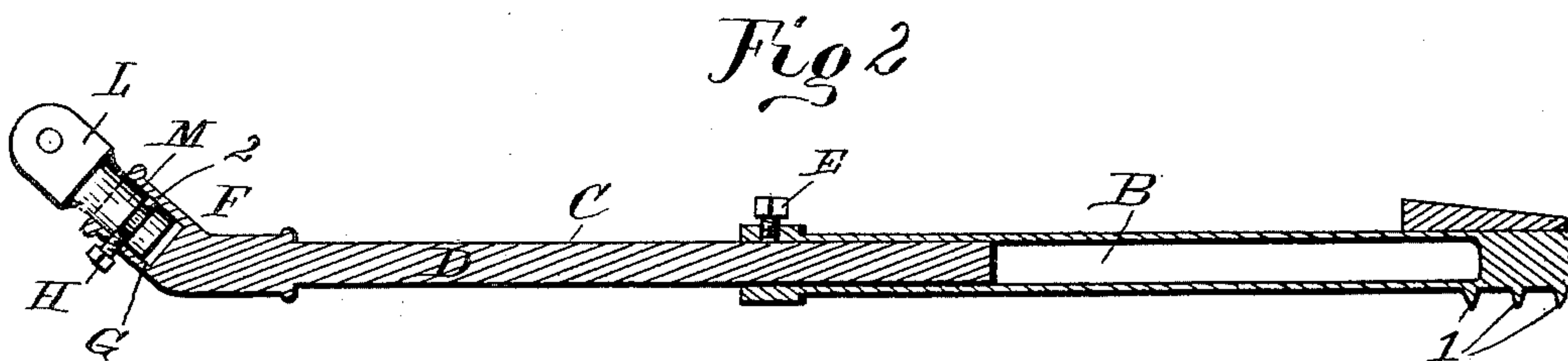
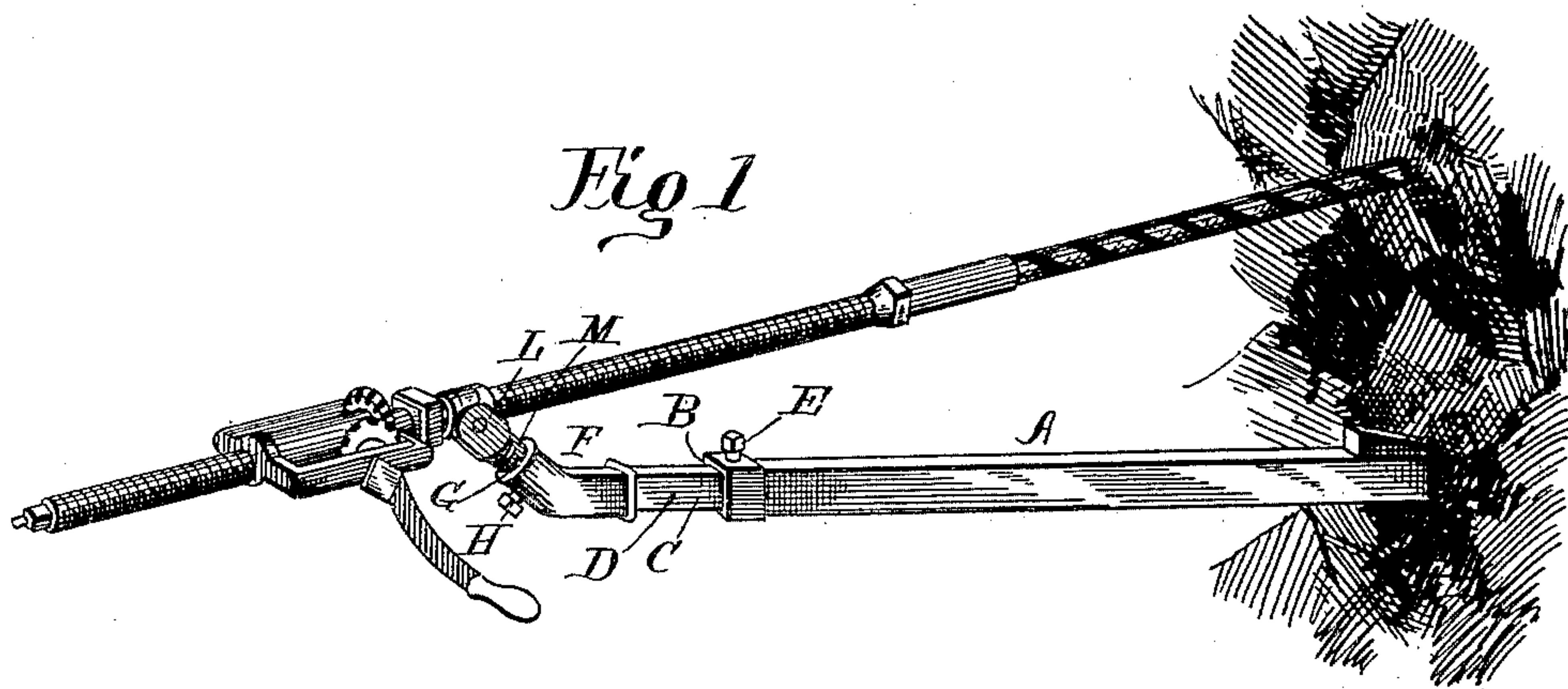


(No Model.)

M. F. McNELLY.
COAL AUGER POST.

No. 468,058.

Patented Feb. 2, 1892.



Witnesses
C. C. Burdine
H. P. Wilson.

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UNITED STATES PATENT OFFICE.

MATHIAS FRANK MCNELLY, OF STERLING, ILLINOIS, ASSIGNOR OF ONE-HALF TO WILLIAM A. McCUNE, OF SAME PLACE.

COAL-AUGER POST.

SPECIFICATION forming part of Letters Patent No. 468,058, dated February 2, 1892.

Application filed April 28, 1891. Serial No. 390,753. (No model.)

To all whom it may concern:

Be it known that I, MATHIAS FRANK MCNELLY, a citizen of the United States, residing at Sterling, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Coal-Auger Posts; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has reference to improvements in coal-auger posts and is an improvement upon the construction for which Letters Patent of the United States No. 356,488 were granted me January 25, 1887, for mining-machines; and it consists in an auger or drill-grip post to be substituted for the auger-support shown in said Letters Patent, where the mining is performed under conditions that my post here shown can be more advantageously used.

In the construction shown in said patent a roof, as well as a base, was essential to secure the post in position.

In my present invention the grip-post can be fastened in the coal-vein at any desired angle and upon any surface of the latter and in such position that the auger may be driven upward, downward, or at any angle with the grip-post.

The object of my invention is to provide a grip-post which can be seated vertically to drill a hole downward into the top of the vein of coal or which can be attached under the vein of coal, so as to drill a vertical or oblique hole upwardly in said vein, or which can be attached in the side or end of said vein to drill a horizontal or an oblique hole therein; and a further object of my invention is to make the length of said grip-post adjustable to accommodate it to different lengths of augers and to the various-sized spaces in which the latter are required to be used; also to make the said post of an angular formation to prevent the torsional strain accompanying oblique boring from injuring the ad-

justing mechanism or turning said post in its retaining-socket. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective of a machine embodying my invention, showing said grip-post attached to a vertical wall of coal and supporting the auger shown in my former patent. Fig. 2 is a detail of the grip-post partially withdrawn from its retaining-socket. Fig. 3 is a cross-section about midway of the grip-post and its retaining-socket.

A is the post-socket, preferably of a square or angular formation and having the interior longitudinal square or angular opening B therein for the reception of the adjustable post C and provided on its lower surface near its inner end with the retaining-spurs 1. In the operation of my invention the inner end of the socket A is inserted in a suitable hole formed in the body of the coal, either on the top, bottom, side, or end of the coal-vein, and held firmly therein by a wedge driven in said hole against the side of said socket oppositely to the spurs 1.

C is the grip-post proper, and consists of a square or angular shank D, adapted to be inserted adjustably in the angular orifice of the socket or holder A any desired degree and to be held adjustably therein by means of the set-screw E, seated transversely at any convenient point in the wall of the socket A in such position that its inner end may impinge upon the shank D and hold the latter rigidly at any point of its insertion in said opening B.

The outer end of the post C is provided with a head F, rigidly seated at its inner end on the outer end of the shank D and at a slight angle with the latter and provided at its outer end with an opening G, adapted to receive the stem M of the usual auger-swivel L, which latter is held therein by the transverse set-screw H, seated in the wall of the opening G and adapted to project into an annular recess 2, formed in the periphery of the aforesaid stem M, so as to permit the latter to rotate laterally in said socket G.

The auger shown in my former patent can be optionally seated in the grip-post here shown, and the provision of the latter post

will, in connection with the former one, afford substantially two machines adapted in the aggregate for use in all situations; but the grip-post C can be used with any of the
5 well-known augers by obvious adaptation in the socket G to receive the supporting devices of such augers.

Where the necessity exists for a short auger, the shank D may be correspondingly pushed
10 into the socket A, and where it is desirable to use a longer auger said shank may be withdrawn from said socket and adjusted accordingly.

The advantage of the angular socket and
15 angular shank inserted therein, as distinguished from the round socket and shank, consists in the fact that the longitudinal adjustment of the shank within such socket is necessarily accomplished by a set-screw abutting against the exterior of said shank, and
20 in boring across the line of said shank, either diagonally or otherwise, the resistance of the coal tends to rotate a round shank in the socket and tear the shank loose from the set-screw, thus releasing the adjustment and in-
25 juring and eventually destroying the shank by the abrasions thereon from the ends of said set-screw.

In my invention the set-screw E is not re-
30 lied upon to prevent the rotation of the shank D in the socket A; but such rotation is effectually precluded by the angular formation of

said shank and socket, by which the socket itself holds the shank from lateral rotation.

In my invention I have shown the socket 35 A and shank D with four equal sides and angles; but it is obvious that the same result can be effected by a greater or less number of sides and angles. The head F can be projected in different directions without disturb- 40 ing the socket A by withdrawing, turning, and reinserting the post C.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

In a coal-auger post, the combination, with
45 a socket provided with an angular longitudinal recess and having means for securing it in the coal, of a post in the socket, the shank of which is angular and adapted to be adjust- 50 ably secured within the socket, the upper end of said post being bent at an angle to the main portion or body and provided with an opening in its outer end adapted to receive and permit of the rotation therein of the stem 55 of the usual auger-swivel, and means for retaining the stem of the swivel therein, substantially as described.

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

MATHIAS FRANK MCNELLY.

Witnesses:

WILLIAM A. McCUNE,
JOHN G. MANAHAN.