

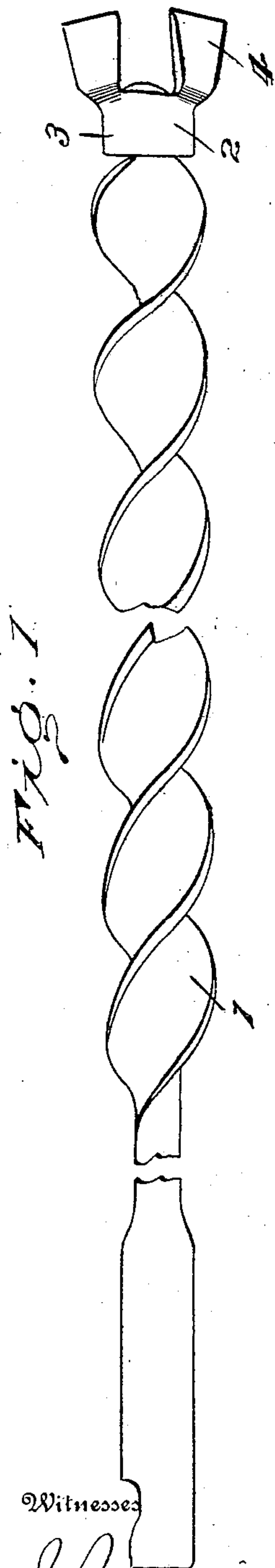
No. 870,281.

PATENTED NOV. 5, 1907.

B. V. GILMORE.

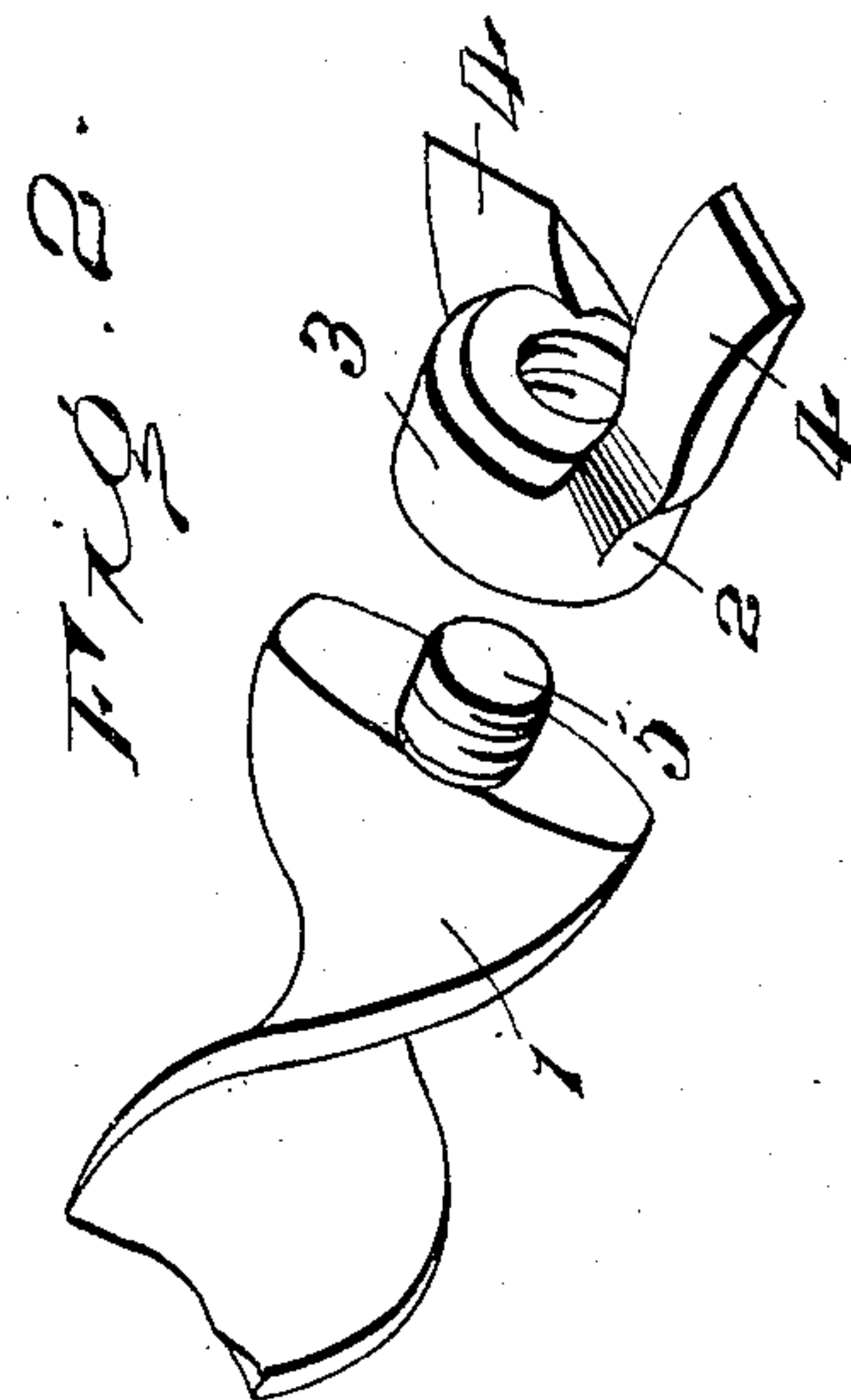
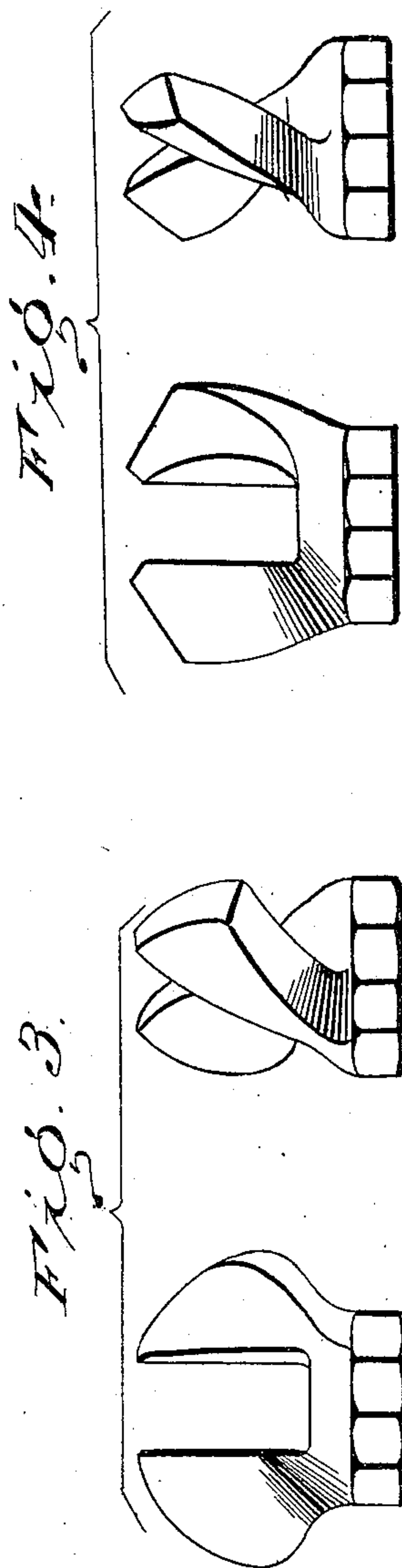
COAL DRILL.

APPLICATION FILED DEC. 4, 1906.



Witnesses

Johnnie
W. R. Woodson



Inventor
B. V. Gilmore

By

Ph. A. Racy,

Attorneys

UNITED STATES PATENT OFFICE.

BENJAMIN V. GILMORE, OF RED HOUSE SHOALS, WEST VIRGINIA.

COAL-DRILL.

No. 870,281.

Specification of Letters Patent.

Patented Nov. 5, 1907.

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To all whom it may concern:

Be it known that I, BENJAMIN V. GILMORE, a citizen of the United States, residing at Red House Shoals, in the county of Putnam and State of West Virginia, have
5 invented certain new and useful Improvements in Coal-Drills, of which the following is a specification.

This invention supplies a drill for mining operations, being of special advantage in the coal industry since it enables the drill to be repointed without necessitating
10 carrying in stock a number of drills, or without incurring the loss of time incident to removing a drill from the machine and replacing the same by a new drill having a sharpened point.

In accordance with this invention, a drill when dull
15 may be quickly repointed by removing the dulled point and replacing the same, either by means of a new point, or by an old point that has been resharpened, the construction being such as to admit of the interchange of points being quickly effected and to render
20 the point firm and secure.

In the drawings hereto attached,—Figure 1 is a view in elevation of a coal drill provided with a removable point. Fig. 2 is a detail perspective view of a portion of the drill and point showing the parts separated. Fig.
25 3 is a front and an edge view of a different form of point. Fig. 4 is a front and an edge view of a further modification.

Corresponding and like parts are referred to in the following description and indicated in all the views of
30 the drawings by the same reference characters.

The drill 1 may be of any length and construction and is of spiral form to admit of removal of the cuttings so as to preclude obstructing the free action of the point as the drill is advanced to its work.

35 The point 2 is removably fitted to the drill and may be variously formed and comprises a head 3 and bits 4. The bits 4 are oppositely disposed and have a somewhat parallel arrangement. The bits decrease in thickness from the head to their cutting edge and in
40 front view they may be of a different outline according to the especial design, or the nature of the vein to be

worked. The bits may be flat, or have a partial twist imparted thereto and their outer and end edges may be straight, or curved, and the straight edges may be either inclined or straight across. The head 3 of the
45 point may be of any construction so as to be detachably fitted to the end of the drill. In the preferable arrangement, the head 3 is formed with an opening which is interiorly threaded and the end of the drill 1 is reduced and this reduced portion 5 is exteriorly threaded
50 to match the threaded opening of the head 3. When the point is fitted to the drill, the head 3 abuts against the shoulder formed at the base of the reduced portion 5. When the drill becomes dull, the point may be quickly removed and a new point placed in position,
55 and since this interchange may be effected in a comparatively short time, no material loss is occasioned as is experienced when the drill is required to be replaced.

When the points are detached from the drill, they may be fitted to a short stem which will admit of their
60 being conveniently handled when being sharpened, thereby obviating the inconvenience occasioned by grinding the points of long drills.

Having thus described the invention, what is claimed as new is:
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1. A removable point for mining drills, the same comprising an approximately flattened head of substantially circular outline and having a centrally disposed threaded opening and provided with integral bits projected from its
70 outer face about in line with the axis of the threaded opening and located to one side thereof.

2. A mining drill having its extremity reduced and threaded and a removable point consisting of a flattened head of approximately rounded form having a centrally
75 disposed threaded opening to match the reduced threaded extremity of the drill, and bits forming a part of the head and projected from the outer or lower face thereof and located upon opposite sides of the opening formed therein, said bits flaring towards their extremities and having a
80 partial twist in their length.

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

BENJAMIN V. GILMORE. [L. S.]

Witnesses:

A. L. RYMER,

F. L. MIDDLETON.