

No. 756,476.

PATENTED APR. 5, 1904.

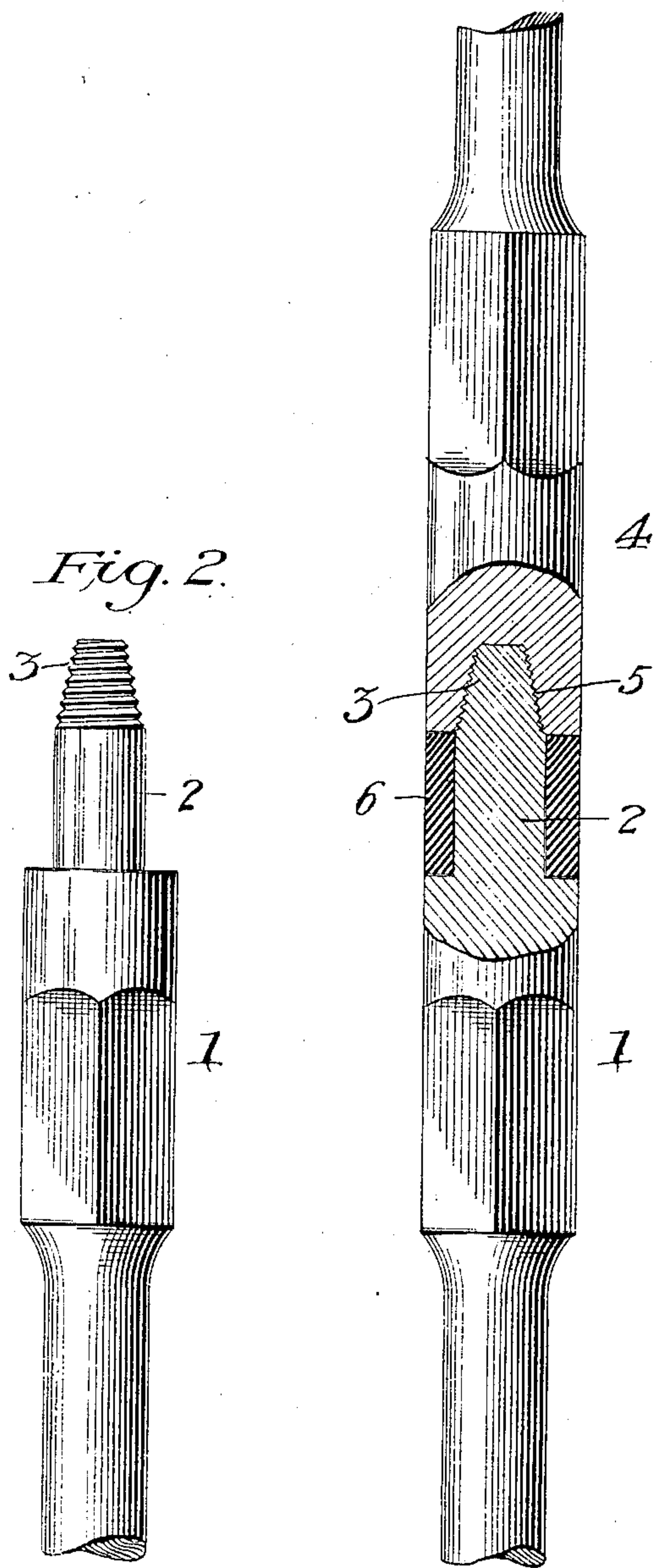
H. J. CONNOLLY & W. D. MONTGOMERY.

DRILLING TOOL JOINT.

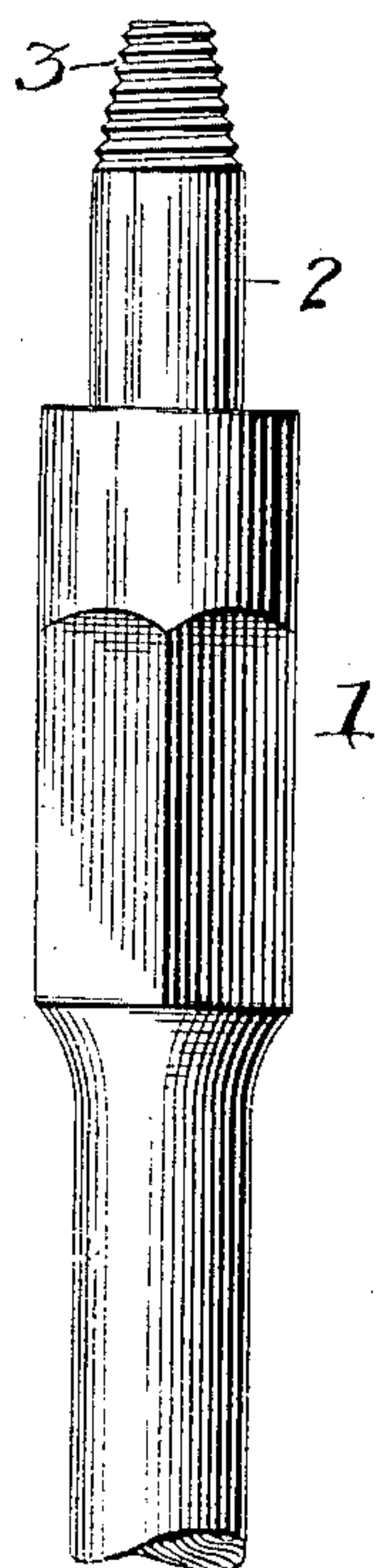
APPLICATION FILED FEB. 26, 1902.

NO MODEL.

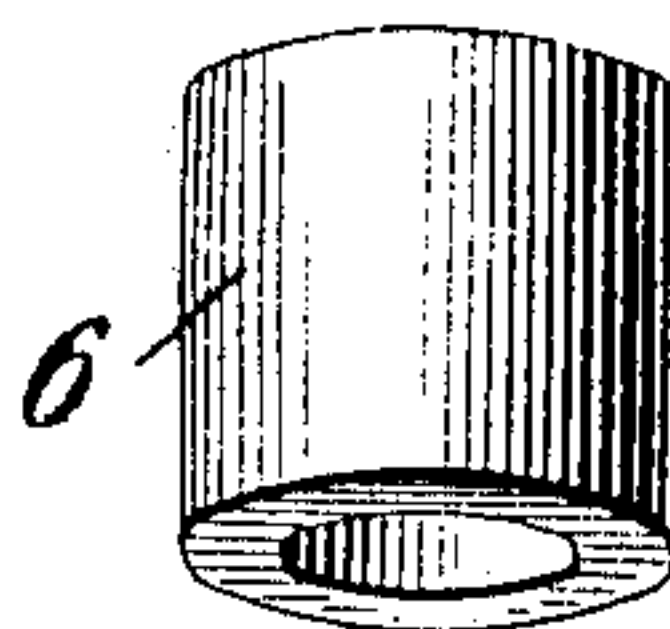
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:

*Alex. Scott*

*Geo. E. Chavet*

*H. J. Connolly*  
*W. D. Montgomery*

## UNITED STATES PATENT OFFICE.

HENRY J. CONNOLLY AND WELLS D. MONTGOMERY, OF SALEM, WEST VIRGINIA.

## DRILLING-TOOL JOINT.

SPECIFICATION forming part of Letters Patent No. 756,476, dated April 5, 1904.

Application filed February 26, 1902. Serial No. 95,763. (No model.)

*To all whom it may concern:*

Be it known that we, HENRY J. CONNOLLY and WELLS D. MONTGOMERY, citizens of the United States, residing at Salem, in the county of Harrison and State of West Virginia, have invented certain new and useful Improvements in Drilling-Tool Joints, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention has relation to drilling-tool joints; and it consists in the novel construction and arrangement of its parts, as hereinafter shown and described.

15 The object of the invention is to provide a joint between the sections of the rod for operating the tool, said joint being so constructed that in case of a break the portion of the rod lodging in the well may be easily and readily removed or fished out.

20 In the accompanying drawings, Figure 1 is a side elevation of abutting ends of the rod-sections, showing the joint in section. Fig. 2 is a side elevation of the upper end of the rod-section. Fig. 3 is a perspective view of 25 the sleeve used at the joint.

The upper end of the lower rod-section 1 is provided with a shank 2, said shank being of less diameter than the said rod 1. The lower portion of the said shank 2 is cylindrical and 30 is provided with a smooth surface, while the upper portion 3 is made on the frustum of a cone and is exteriorly screw-threaded. The lower end of the upper rod-section 4 is provided with an interiorly-screw-threaded 35 socket 5 and adapted to receive the end 3 of the shank 2 and engage the thread thereof. The diameter of the section 4 is the same or substantially the same as that of the section 1, and the collar 6 is interposed between the

end of the rod-section 4 and the shoulder 40 formed at the base of the shank 2, said collar 6 surrounding the smooth cylindrical portion of the shank 2 and is of the same diameter as that of the rod-sections 1 and 4. By the use of the joint thus formed when the section 4 45 becomes disengaged from the section 1 and the last said section is lodged in the well the operator may pull the sleeve 6 from the shank 2 by any ordinary means. The removal of the said sleeve leaves the smooth cylindrical sur- 50 face of the shank 2 exposed, which may be taken hold of by a socket of sufficient size and strength to pull the rod-section 1 and its attachments from the well. The advantage of exposing the smooth cylindrical portion of 55 the shank 2 by the removal of the collar 6 is that the socket may take hold of the said shank without having to mill the same on while the tool is in the bottom of the well.

Having thus described our invention, what 60 we claim as new, and desire to secure by Letters Patent, is—

A drilling-tool joint consisting of a box provided with an internally-threaded socket, a drill-rod provided with a straight or reduced 65 shank, said shank being blank for a portion of its length and threaded at its end, to engage said screw-threaded socket, a sleeve to occupy said blank space on drill-rod, to provide a perfect joint when the parts are assembled. 70

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

H. J. CONNOLLY.  
W. D. MONTGOMERY.

Witnesses:

E. G. DAVIS,  
M. H. DAVIS.