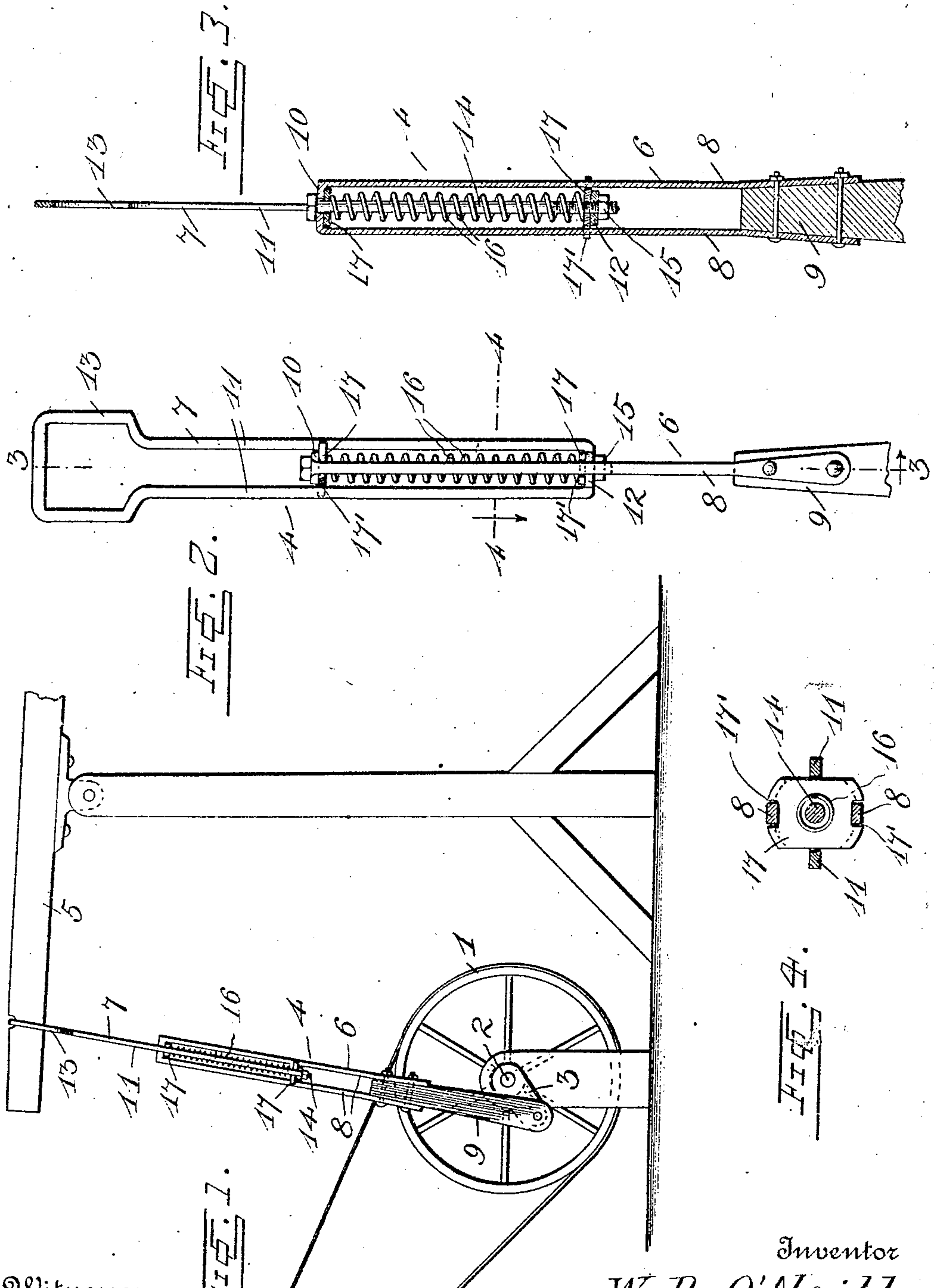


No. 810,798.

PATENTED JAN. 23, 1906.

W. R. O'NEILL.
EXTENSIBLE PITMAN ROD.
APPLICATION FILED JULY 3, 1905.



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EXTENSIBLE PITMAN-ROD.

No. 810,798.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed July 3, 1905. Serial No. 268,097.

To all whom it may concern:

Be it known that I, WILLIAM R. O'NEILL, a citizen of the United States, residing at Findlay, in the county of Hancock and State of Ohio, have invented certain new and useful Improvements in Extensible Pitman-Rods; 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.

This invention relates to improvements in extensible pitman-rods.

The object of the invention is to provide a pitman-rod of this character for use in connection with well-drilling machinery, whereby should the drill become stuck the pitman will give sufficiently to permit the crank on the operating mechanism to turn round, thus preventing the breaking of any of the parts or the throwing off of the driving-belt.

A further object is to provide a pitman of this character which will be simple, strong and durable in construction, efficient in operation, and well adapted to the purpose for which it is designed.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a portion of a well-drilling machine, showing the application of the invention. Fig. 2 is an enlarged side elevation of the pitman. Fig. 3 is a longitudinal sectional view on the line 3 3 of Fig. 2, and Fig. 4 is a cross-sectional view on the line 4 4 of Fig. 2.

Referring more particularly to the drawings, 1 denotes a drive-wheel or band-pulley of a well-drilling machine, which is suitably mounted upon a drive-shaft 2, on one end of which is arranged a crank 3. To the outer end of the crank 3 is connected one end of a yielding pitman-rod 4, the opposite end of which is connected to the walking-beam 5 of a drill-operating mechanism. To the opposite end of the walking-beam is connected a cable, which carries the drill-rod. These latter parts being of the usual or any desired construction it is not deemed necessary to illustrate the same.

The present invention consists in the peculiar construction and arrangement of the pitman-rod, whereby the same is adapted to be extended so that should the drill become stuck

the other parts of the drilling machinery will not be broken by continued operation of the driving mechanism, and to this end the pitman-rod 4 is formed in two sections or parts 6 and 7. The lower part of the pitman-rod, or that part which is connected to the crank-arm 3, is in the form of a yoke or bail consisting of parallel side bars 8, which are bolted or otherwise connected at their lower ends to a wrist-pin block 9, in the end of which is formed an aperture to engage the wrist-pin on the crank-arm 3. The upper ends of the side bars 8 are connected by an apertured part 10. The upper part 7 of the pitman-rod, or that part which connects directly with the walking-beam 5, is in the form of an open frame consisting of parallel side bars 11, which are connected at their lower ends by an apertured part 12. The upper end of the side bars terminate in the form of a stirrup 13, with which is engaged the end of the walking-beam.

In assembling the parts the frame 7 is engaged with the yoke 6, as shown, and through the apertured parts 10 and 12 of said frame and yoke is inserted a bolt 14, the lower end of which is provided with an adjustable nut 15. On the bolt 14 between the parts 10 and 13 is arranged a coil-spring 16, the tension of which is exerted to hold the engaged ends of the yoke and frame apart to the limit allowed by the bolt 14. On the bolt 14 between the opposite ends of the spring 16 and the adjacent disk of the frame and yoke are arranged apertured guide-plates 17. Said plates are provided with notches or recesses 17', arranged in the edges thereof to engage the adjacent side bars of the frame 6 and yoke 7, thereby guiding and holding the same in proper position to permit the two parts of the pitman-rod to be actuated to extend or increase the length of the same.

By the use of a pitman-rod constructed as herein shown and described should the operating mechanism of the drill become locked by the sticking of the drill-tool the driving mechanism will be permitted to continue in operation without danger of breaking any of the parts or of throwing off the driving-belt, the elastic construction of the pitman-rod permitting the crank-shaft and the crank to revolve, while the walking-beam is held against movement.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the inven-

tion will be readily understood without requiring a more extended explanation.

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

10 A pitman formed in two parts or sections, one of which consists of an open frame 7, having at one end an integrally-formed, apertured part 12, a bail or yoke 8 to engage said open frame, and form the other part or section of said pitman, said yoke having at its inner end an integral apertured part 10, a bolt 14 arranged in said apertured parts to connect the sections of said pitman together, a spring

arranged on said bolt between said parts, and 15 apertured guide-plates 17 arranged on the bolt between the ends of the spring and said apertured parts, said plates having guide-recesses formed in their edges to receive the side bars of the frame and yoke forming the 20 pitman, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM R. O'NEILL.

Witnesses:

F. F. GILLESPIE,
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