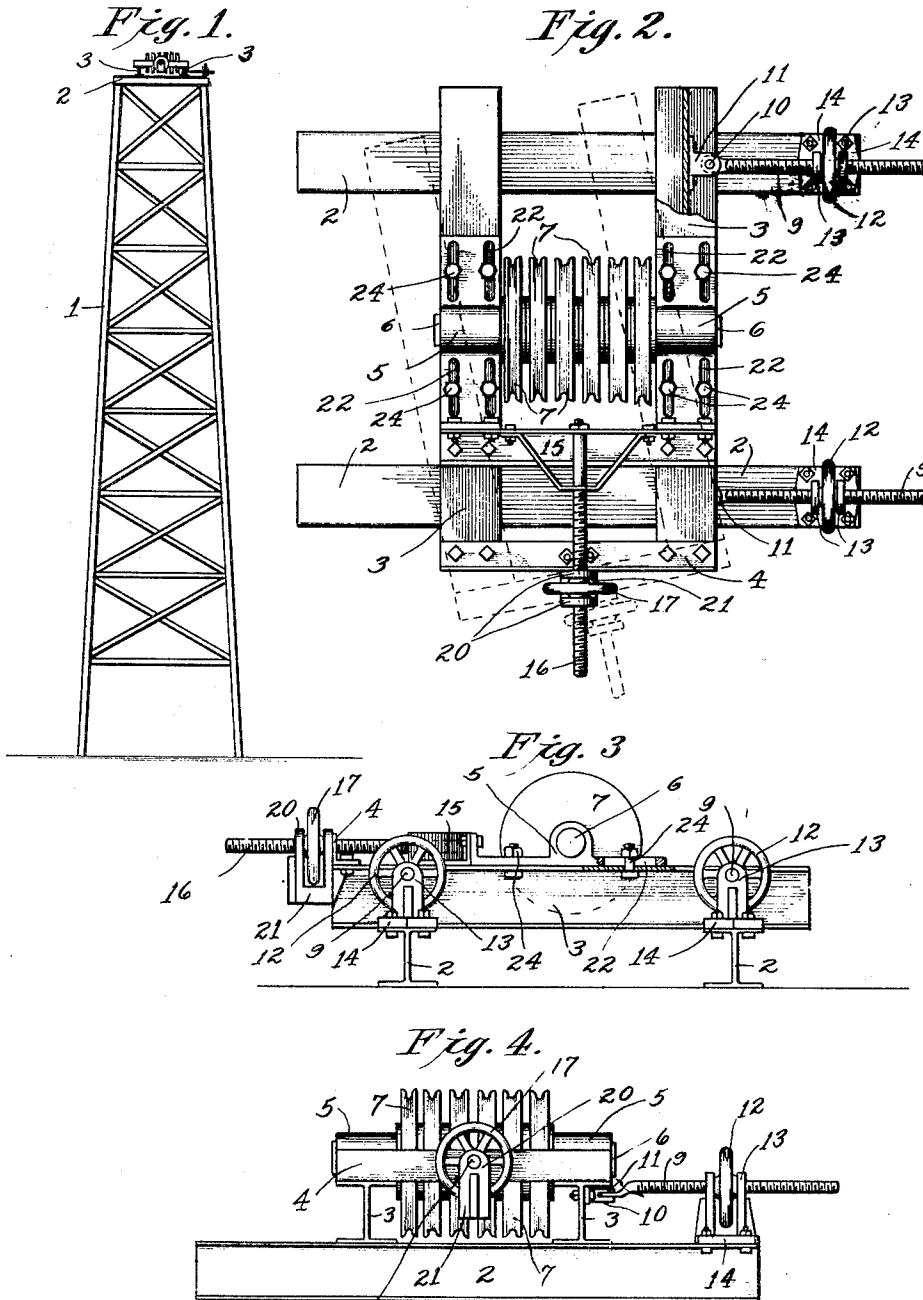


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CROWN BLOCK FOR WELL DRILLING RIGS.  
APPLICATION FILED MAR. 20, 1911.

1,002,952.

Patented Sept. 12, 1911.



Witnesses:

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*Augustus C. Zierath atty*

# UNITED STATES PATENT OFFICE.

AUGUSTUS C. ZIERATH, OF LOS ANGELES, CALIFORNIA, ASSIGNOR TO ZIERATH COMBINATION DRILL COMPANY, OF LOS ANGELES, CALIFORNIA, A CORPORATION OF CALIFORNIA.

CROWN-BLOCK FOR WELL-DRILLING RIGS.

1,002,952.

Specification of Letters Patent.

Patented Sept. 12, 1911.

Application filed March 20, 1911. Serial No. 615,782.

*To all whom it may concern:*

Be it known that I, AUGUSTUS C. ZIERATH, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Crown-Block for Well-Drilling Rigs, of which the following is a specification.

The invention relates to a crown block for supporting the cables in a well drilling rig, and the main object of the invention is to provide a device for this purpose which will be readily adjustable, so as to bring the cables into proper position over the well.

This device is particularly adapted for use where a plurality of cables are used in the different well drilling operations, and one of the objects of the device is to facilitate the setting of the crown block so as to bring one or the other of the cable sheaves directly over the center of the well.

Other objects of the invention will appear hereinafter.

The accompanying drawings illustrate the invention, and referring thereto: Figure 1 is a side elevation of a derrick with a crown block thereon. Fig. 2 is a plan of the crown block partly in section. Fig. 3 is an end elevation. Fig. 4 is a side elevation.

On top of the derrick or frame 1 are provided two rails 2 for supporting the crown block. Said crown block consists of a frame formed, for example, of two parallel I-beams 3 connected at one end by a cross bar 4, bearing members 5 adjustably mounted on said beams 3 and a shaft 6 mounted in said bearing members and carrying the sheaves or pulleys 7. A plurality of such sheaves or pulleys are provided, carrying the different cables for performing the different drilling operations such as standard drilling, sand bailing, elevating, etc., and said sheaves or pulleys are mounted side by side on the shaft 6 so as to be rotated independently thereon.

The beams 3 rest on the rails 2 and are held in proper position thereon, by adjusting means consisting of screws 9, connected by pivots 10 to brackets 11 on the beams 3, and engaging within hand-wheels 12, which are mounted between lugs 13 on supporting brackets 14 on the rails 2, the said hand-wheels being interiorly threaded so as to engage the screws 9, so that on rotation of the hand-wheels the screws will be moved longitudinally one way or the other to corre-

spondingly move the crown block frame. Means are also provided for adjusting the position of the bearing members 5 on the supporting beams 3, said bearing members 5 being connected by a cross bar or frame 15, a bolt 16 being connected or secured to said cross bar or frame 15, and an operating hand-wheel 17 being provided, engaging with the screw-threaded portion of said bolt and working between lugs 20 on a bracket 21 on the cross bar 4, so that on rotation of said hand-wheel 17, the cross bar frame 15 and the bearing members 5 connected thereto; will be moved in one direction or the other to shift the position of the pulleys in a transverse direction. Said bearing members 5 are provided with slots 22 extending parallel to the beams 3 and bolts or screws 24 are provided, extending through said slots and engaging with the beams 3 to guide the bearing members 5 in their adjustment, and to lock the same in set position when required.

The operation is as follows: The crown block having been put on the rails 2 and the cables placed on the sheaves 7, the block is adjusted to proper position longitudinally of the rails 2 by means of the hand-wheels 12 working on screws 9, and the sheaves are adjusted to proper position in a transverse direction by loosening the bolts or screws 24 and adjusting the position of the bearing members 5, by operation of the hand-wheel 17. When the parts have thus been brought to proper position, the bolts or screws 24 are tightened, thereby locking the bearing members 5 in set position. By reason of the pivotal connection of the screws 9 with the beams 3, the crown block may be adjusted angularly as well as longitudinally and transversely, by moving the screws 9 to different extents, for example, the crown block may be moved from the position shown in full lines in Fig. 2, to the position in dotted lines in said figure.

What I claim is:

1. A crown block for well drilling rigs, comprising supporting rails, a crown block frame mounted to slide thereon, a screw member pivotally connected to the crown block frame, adjacent to each of said rails, and operating means engaging said screw members to move the same longitudinally on rotation of said operating means, and supporting means for said operating means on said rails.

2. A crown block for well drilling rigs comprising supporting rails, a crown block frame resting on said rails, means for adjusting the position of said crown block frame longitudinally of said rails, bearing members movable on said crown block frame transversely of the said rails, and means on said crown block frame for adjusting the position of said bearing members in a trans-  
10 verse direction.

3. A crown block for well drilling rigs comprising supporting rails, a crown block frame resting on said rails, means for adjusting the position of said crown block frame longitudinally of said rails, bearing members movable on said crown block frame transversely of the said rails, and means on

said crown block frame for adjusting the position of said bearing members in a trans-  
verse direction, comprising a screw member 20 connected to said bearing members, an operating member engaging said screw member to move the same on rotation of said operating member, and supporting means for said operating member on said crown block 25 frame.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 9th day of March, 1911.

AUGUSTUS C. ZIERATH.

In presence of—

ARTHUR P. KNIGHT,  
FRANK L. A. GRAHAM.