

G. HOMBARG.
WELL DRILLING MACHINE ATTACHMENT.
APPLICATION FILED SEPT. 8, 1909.

979,954.

Patented Dec. 27, 1910.

2 SHEETS—SHEET 1.

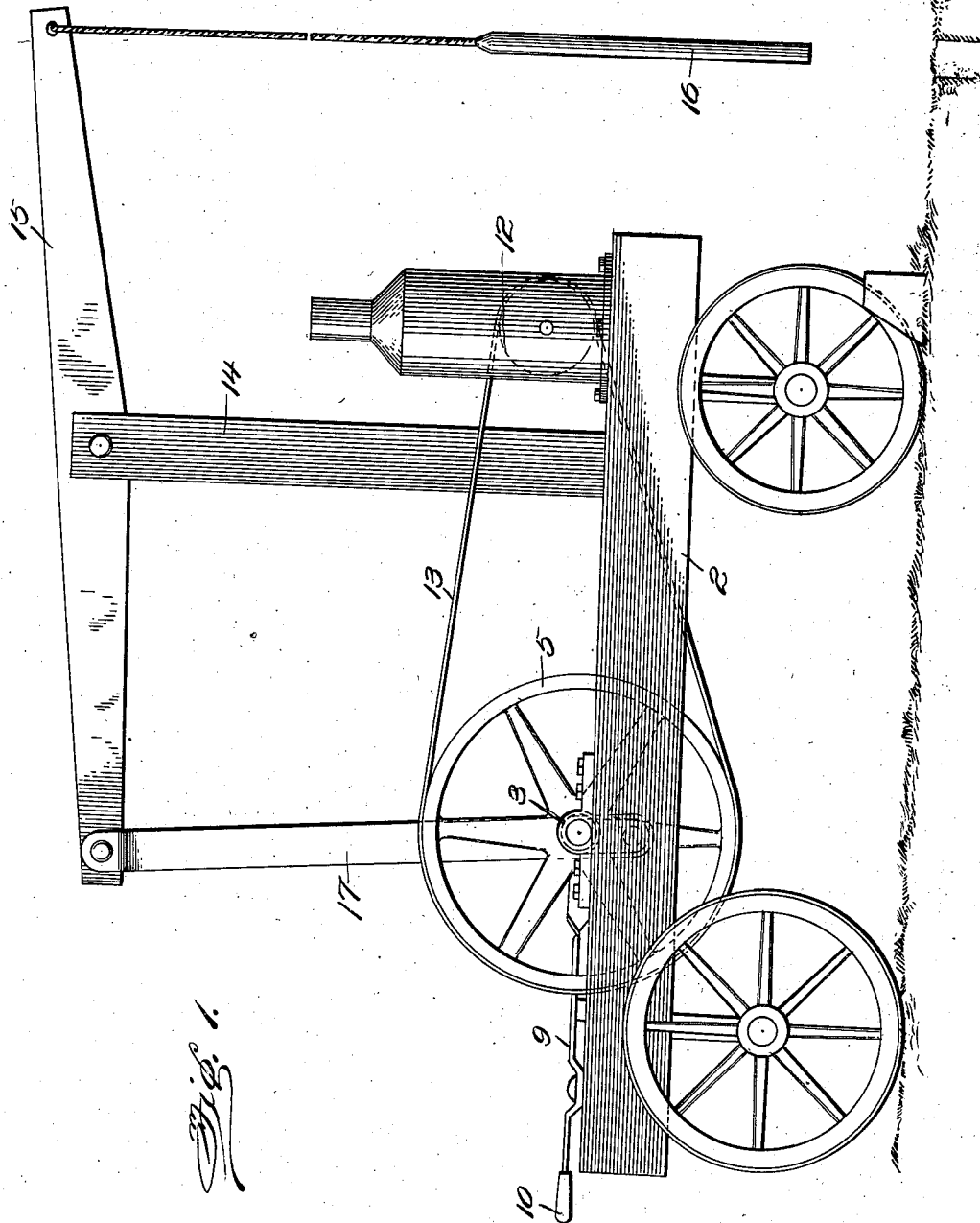


Fig. 1.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

Fig. 4.

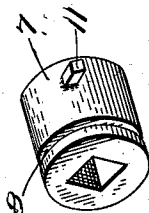


Fig. 2.

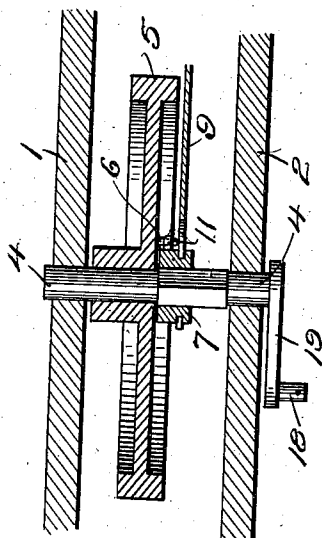
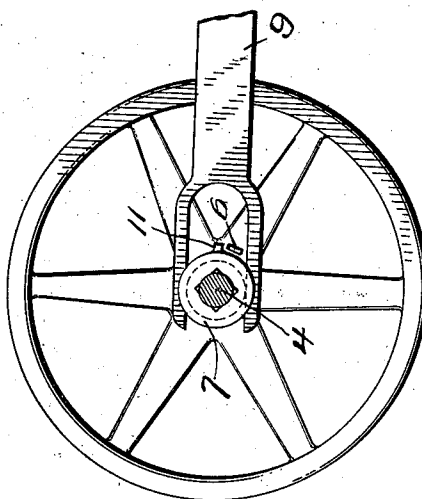


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE HOMBARG, OF HAMPTON, KENTUCKY.

WELL-DRILLING-MACHINE ATTACHMENT.

979,954.

Specification of Letters Patent.

Patented Dec. 27, 1910.

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To all whom it may concern:

Be it known that I, GEORGE HOMBARG, a citizen of the United States, residing at Hampton, in the county of Livingston and State of Kentucky, have invented new and useful Improvements in Well-Drilling-Machine Attachments, of which the following is a specification.

This invention relates to well drilling machines and has for an object to provide novel, simple and efficient means whereby the tool actuating main drive wheel can be readily thrown into and out of operation.

Other objects and advantages will be apparent as the nature of the invention is better disclosed and it will be understood that changes within the specific scope of the claim can be made without departing from the spirit of the invention.

In the drawings forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views,—Figure 1 is a side elevation of my improved well drilling machine. Fig. 2 is a detail sectional plan through the main drive wheel. Fig. 3 is a detail side elevation of the drive wheel and its cooperating clutch member. Fig. 4 is a detail perspective view of the clutch member.

My improved well drilling machine consists preferably of a wheeled frame which comprises a pair of suitably connected spaced beams 1 and 2. These beams have mounted thereupon alining bearing boxes 3 in which the cylindrical end portions 4 of a driven shaft are mounted. A main driving or actuating wheel 5 is mounted upon one of the cylindrical end portions of the shaft and as illustrated the said wheel carries a horizontally extending lug 6. The shaft is formed with a longitudinally extending squared portion 6 upon which is slidably mounted a member 7. The member has formed therein an annular groove 8 which receives the forked extremity of an operating lever 9. The lever is pivoted upon the frame of the machine and is provided with a rearwardly extending handhold 10 which lies in convenient reach of the operator or attendant. The member 7 has formed thereon a radial lug 11 which extends at right angles to the lug 6 upon the drive wheel 5 and is adapted when the clutch member is moved upon the shaft to be thrown into or out of the path of movement of the lug 6. In this manner it will be appreciated that

the main drive wheel can be readily thrown into or out of operation.

The frame of the machine carries a driving pulley 12 which is located in line with the drive wheel 5. A suitable drive belt 13 is operatively associated with the pulley 12 and the drive wheel 5, as shown.

The frame of the machine supports a standard 14 upon which is operatively mounted a walking beam 15. This beam supports at one end a drill tool 16 which may be of any well known construction. At the other end the said walking beam is pivotally connected with the upper end of a link 17, the lower end of said link being operatively mounted upon the pin 18 of a crank arm 19, which latter is secured in any well known manner to one of the ends 4 of the drive wheel supporting shaft.

The construction of a well drilling machine as herein shown and described is extremely simple and is provided with effective means whereby the main drive wheel for actuating the walking beam can be thrown into or out of operation.

In operation of my improved well drilling attachment, assuming the member 7 to be in the position shown in Fig. 2 of the drawings the tooth 11 when the shaft 4 is rotated will be brought into engagement with the lug 6 of the drive wheel 5, it being understood, however, that it will not be constantly or positively engaged therewith. In rotation of the drive wheel 5 it will carry therewith the member 7 but incident to the peculiar arrangement of the elements 5 and 7 and the peculiar construction of the driven shaft, the latter may revolve at a greater rate of speed than the wheel 5, it being understood that as soon as the crank portion 19 passes its center of gravity it will be free to revolve independently of the said drive wheel. In view of this construction the drive wheel may be driven at a very low rate of speed and the crank portion 19 of the apparatus effectively actuated to impart to the drilling tool the desired drop.

I claim:—

In well drilling apparatus, a frame, a walking beam thereon, a drill tool suspended from one end of the beam, a shaft revolubly mounted on the frame, a driven loose pulley mounted on the shaft, a crank arm supported by the shaft, connections between the crank arm and the walking beam, a sliding actuating element on the shaft and constructed

to revolve therewith and independently of
the pulley, a lug extending from the pulley,
a lug extending from the said sliding ac-
tuating element to be engaged by the lug
5 on the pulley so as to impart rotary move-
ment to the shaft and to allow the shaft to
rotate independently of the pulley and at a
greater rate of speed by weight of the walk-
ing beam and drill tool thereof, and a mov-
10 ably mounted member operatively connected

with the actuating element to move the same
to a position to cause its lug to lie out of the
path of the lug on the pulley.

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

GEORGE HOMBARG.

Witnesses:

C. E. SLAYDEN,
F. F. RANKIN.