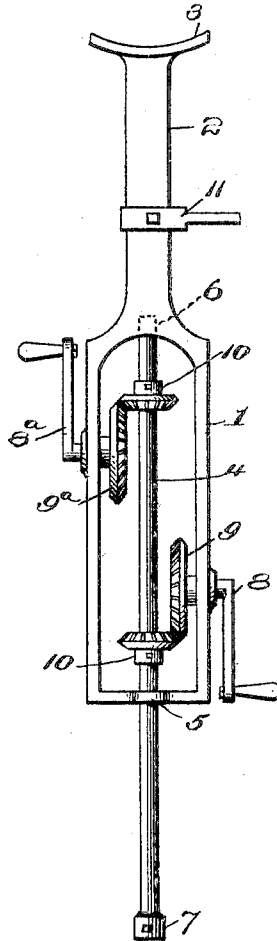


No. 802,891.

PATENTED OCT. 24, 1905.

J. A. SCOTT.
DRILLING MECHANISM.
APPLICATION FILED NOV. 2, 1904.



Witnesses
J. M. Fowler Jr.
E. C. Vrooman.

Inventor
Jason A. Scott,
By *Beall & Fenwick.*
his Attorneys

UNITED STATES PATENT OFFICE.

JASON A. SCOTT, OF WALNUTGROVE, ALABAMA.

DRILLING MECHANISM.

No. 802,891.

Specification of Letters Patent.

Patented Oct. 24, 1905.

Application filed November 2, 1904. Serial No. 231,150.

To all whom it may concern:

Be it known that I, JASON A. SCOTT, a citizen of the United States, residing at Walnutgrove, in the county of Etowah and State of Alabama, have invented new and useful Improvements in Drilling Mechanisms, of which the following is a specification.

This invention relates to new and useful improvements in drilling mechanisms, and particularly to a manually-operated drill or auger.

The object of this invention is the provision of a plurality of driving means for a shaft.

Another object of this invention is to improve the construction of a mechanism which is provided with double-crank-actuated gearing arranged at different points upon a shaft.

A still further object of the invention is the provision of a simple and durable mechanism constructed of a minimum number of parts and efficient in operation.

With these and other objects in view the invention consists of certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described, illustrated in the accompanying drawing, and more particularly pointed out in the claims hereto appended.

In the drawing the figure is a view in side elevation of a mechanism constructed in accordance with the present invention.

Referring to the drawing by reference-numerals, 1 designates the body portion of the frame. Extending from the body portion 1 of the frame is an integral handle portion 2, which is provided with an integral curved plate 3. The operator presses against the curved plate 3 while the machine is in operation. The body portion of the frame 1 is approximately rectangular in shape. A revoluble shaft 4 is journaled in the frame at 5 and 6. The revoluble shaft 4 is provided upon its outer end with a bit-socket 7. A crank-shaft 8 is journaled upon one side of the body portion 1 of the frame and near the lower end thereof. The crank-shaft 8 is provided with a cog or beveled gear-wheel 9, which is positioned within the parallel sides of the body portion 1 of the frame. A similarly-constructed crank 8^a is journaled upon the upper end of said body portion 1 and upon the opposite side from that carrying the crank 8. A similarly-constructed member 9^a to that of 9 is secured to the crank 8^a. Comparatively small cogs or beveled gear-wheels 10 are adjustably secured in engagement with the members 9 and 9^a upon shaft 4. The beveled

surface of the cogs 10 are in a reverse position upon the revoluble shaft 4, thereby placing the said members 10 nearer to the journaled portion of said shaft. By means of this arrangement of the comparatively small gears the strain upon the shaft while movement is being imparted thereto is brought to bear nearer the ends of the body portion 1 of the frame, thereby increasing the durability of construction of the mechanism.

The machine is supported by an adjustable standard 11.

A removable bit may be secured within the bit-socket 7.

When rotary movement is imparted to either of the cranks 8 or 8^a, the shaft 4 will be revolved; but it is preferable to manually operate synchronously both of the cranks 8 and 8^a, thereby causing a more efficient operation of the mechanism, as it will be obvious that the strain brought to bear on the shaft is distributed at different points thereon, while such is not the case when only one crank and its gearing is operated to cause movement of the revoluble shaft 4. By means of the double-crank construction employing two sets of gearing arranged at different points along the revoluble drill rod or shaft 4 a very efficient as well as practical and durable mechanism is produced. By employing comparatively small gear-wheels 10, coacting with the large wheels 9 and 9^a, the shaft 4 is caused to revolve rapidly, while the gear-wheels 9 and 9^a are rotated slowly.

While I have described in the foregoing description and illustrated in the accompanying drawing the preferred construction of my invention, it will be obvious to one versed in the art to which this invention relates that certain alterations, modifications, and changes may be made, and I therefore reserve the right to make such alterations, modifications, and changes as shall fairly fall within the spirit and scope of the present invention.

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

1. In a mechanism of the class described, the combination of a rectangular frame provided with an integral handle extending from one end thereof, said handle provided with a curved, body-engaging plate integrally formed upon its outer end, a driving-shaft provided with a bit-socket, positioned between the sides of said frame and extending the entire length thereof, said shaft journaled in the

ends of said frame, a crank-shaft journaled upon one side of said frame near the lower end thereof, a crank-shaft journaled upon the opposite side of said frame near the upper end thereof, beveled gears fixedly secured between the sides of said frame and to the inner ends of said crank-shafts, and beveled gears fixedly secured upon said driving-shaft near each end, meshing with the beveled gears of the crank-shaft, the beveled gears of the crank-shaft positioned between the gears carried by said driving-shaft.

2. In a mechanism of the class described, the combination of a frame provided with an integral handle extending from one end thereof, an integral, curved body-engaging plate formed upon the outer end of said handle, said frame provided with a socket formed in its

upper end, a driving-shaft extending through the lower end of said frame and having its upper end seated in the socket formed in said frame, a pair of crank-shafts journaled upon the sides of said frame near opposite ends thereof, and beveled gears fixedly secured to said driving-shaft near the ends of said frame and meshing with said gears carried by said crank-shafts, the gears of the crank-shafts positioned between the gears of the driving-shaft.

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

JASON A. SCOTT.

Witnesses:

JOHN C. BRASSLALL,
WEBSTER J. ELLISON.