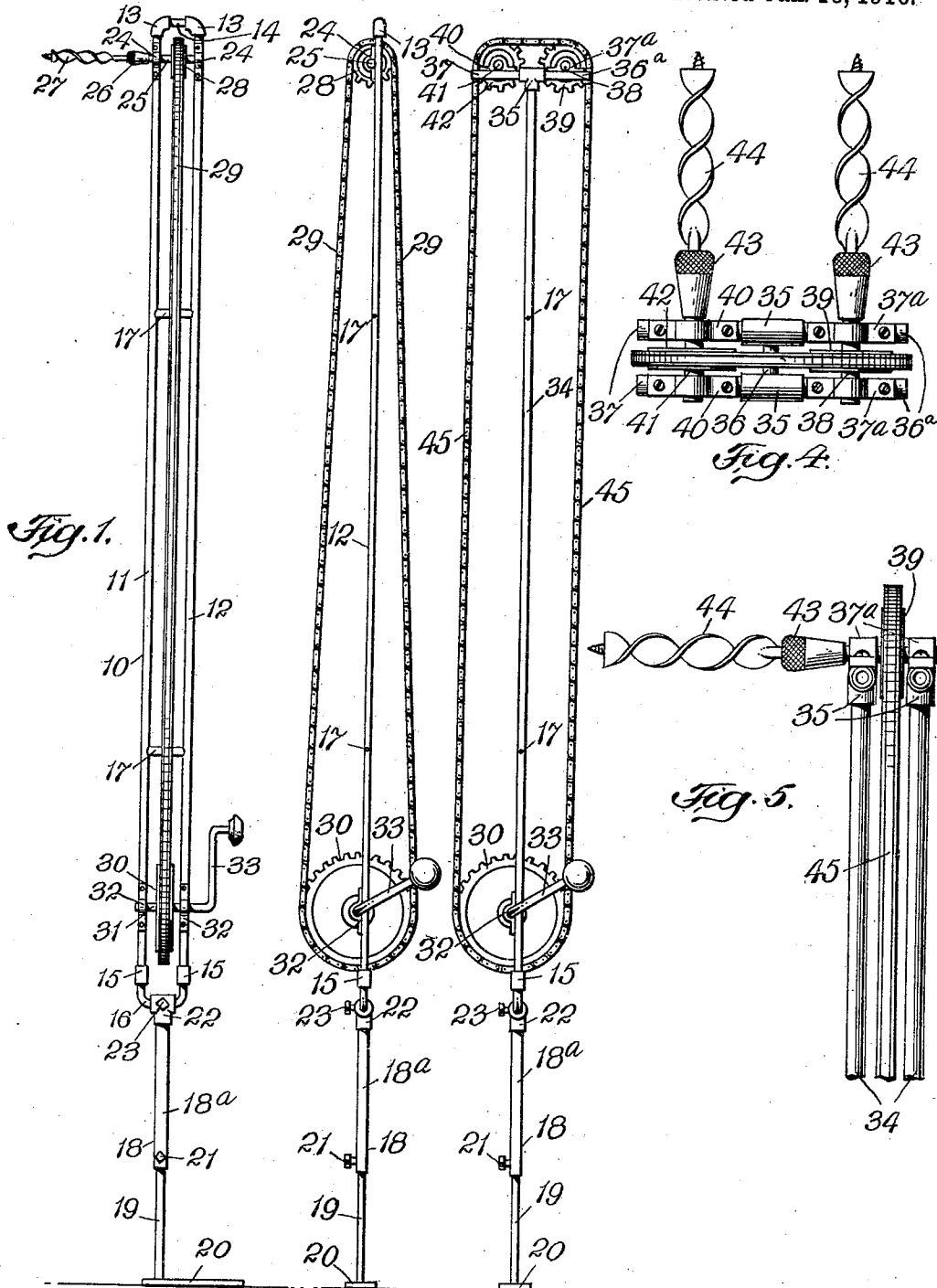


J. H. PARMAN.
BORING MACHINE.

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946,984.

Patented Jan. 18, 1910.



WITNESSES
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Fig. 2.

Fig. 3.

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BORING-MACHINE.

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To all whom it may concern:

Be it known that I, JOHN H. PARMAN, a citizen of the United States, and a resident of Nashville, county of Davidson, and State of Tennessee, have invented certain new and useful Improvements in Boring-Machines, of which the following is a full, clear, and exact description.

This invention relates more particularly to a boring machine adapted for electrical work.

The primary object of the invention is to provide a simple and efficient machine or device which is adapted to bore a single or a plurality of holes in parallel relation, and is so arranged that the holes may be bored at a considerable height from the floor, for example adjacent to the ceiling, and while the operator stands on the floor, thus overcoming the objections incident to the ordinary method wherein the holes are bored by means of a bit or similar tool, the mechanic being compelled to support himself on a step-ladder or other article.

Another object of the invention is to provide a simple, light and effective tool which may be readily transported from one place to another.

A further object of the invention is to provide a tool which may have its frame constructed of pipe, or tubular metal, and which is adapted to be readily adjusted vertically or laterally to adapt the holes to be bored in any desired position.

With these and other objects in view, the invention will be hereinafter more particularly described with reference to the accompanying drawings, which form a part of this specification, and will then be pointed out in the claims at the end of the description.

In the drawings, Figure 1 is a front elevation of one form of device or machine embodying my invention, showing the machine constructed for operating a single tool. Fig. 2 is a side elevation of the machine shown in Fig. 1. Fig. 3 is a side elevation of a machine adapted to simultaneously operate two tools. Fig. 4 is a plan view of the machine shown in Fig. 3; and Fig. 5 is a fragmentary view of the upper part of the machine shown in Fig. 3.

The frame 10 of the machine shown in Figs. 1 and 2 has the side uprights or standards 11 and 12, which may be joined at their

upper ends by L-shaped devices 13, and a short section or bar 14 forming a substantially U-shaped connection, while the lower ends of said uprights or standards 11 and 12 may be provided with coupling members 15 which are connected together by a substantially U-shaped device or member 16, the whole being constructed of pipe or other material as desired, and the uprights suitably braced, as at 17, at one or more points along its length to provide a light, rigid and substantially rectangular frame for the machine.

The adjustable supporting member 18 may hold the frame 10, and this supporting member may comprise a female member 18^a and a male member 19 on the lower end of which is a foot-piece or base 20 whereby the foot of the operator may rest on the same to help support the machine in an upright position, and said member 19 may be adjustably held within the member 18 by a set screw 21 whereby the frame 10 may be adjusted vertically to the desired height. The member 18^a is provided with a T-shaped member or part 22 through which passes the U-shaped device or member 16, and in said part 22 is a set screw 23. It will be seen that by releasing the set screw 23 the frame 10 may be adjusted laterally to various angles with respect to the supporting member 18, and by releasing the set screw 21 a quick vertical adjustment of the frame may be secured.

In the upper part of the frame 10 are arranged brackets or bearings 24 one on each of the standards or uprights 11 and 12, and in said brackets 24 is held to rotate a shaft or spindle 25. This spindle may carry a suitable form of chuck 26 which is adapted to hold a bit or boring tool 27, and arranged on said spindle 25 between the bearings 24 is a sprocket wheel 28, around which passes a sprocket chain 29, and said chain 29 passes around a larger sprocket wheel 30 carried by a shaft 31 arranged to rotate in bearings 32 at the lower part of the frame, and within convenient reaching distance of an attendant. A crank 33 may be secured to the shaft 31 or formed integral therewith so that by operating the crank 33 the sprocket 30 will impart movement to the chain 29, and through said chain rotate the spindle 25 and bit 27 to bore a hole at the desired height. By releasing the set screw 23, the

frame 10 may be inclined either backward or forward so as to bore holes at the desired angle.

In Figs. 3 to 5, the construction of the lower part of the device or machine is substantially the same as in Figs. 1 and 2, and the upper part thereof differs from Figs. 1 and 2, mainly in the frame being constructed and the machine adapted to operate a plurality of bits or boring devices instead of one. As shown the uprights or standards 34 are provided with T-shaped fittings or devices 35 which are connected centrally thereof by a short bar or connection 36 and projecting outwardly from the connection 35 are supports or parts 36^a and 37. The supports 36 have bearings 37^a thereon, and held to rotate in said bearings is the shaft 38 of a sprocket wheel 39, while on the supports 37 are the bearings 40 in which is journaled the shaft 41 of a sprocket wheel 42. The shafts 38 and 41 are each provided with a chuck 43 and each chuck is adapted to carry a tool, as a bit 44, whereby when the crank 33 at the lower part of the machine is operated, the chain 45, which passes around the lower sprocket 30 and the upper sprockets 42 and 39, will rotate said sprockets, and through the same rotate the bits or tools 44.

In using the machine or tool it will be understood that by reason of the length of the same the operator or attendant assists in supporting the same by resting his foot on the base or foot-piece 20, and by means of the adjusting device, already described, the frame may be supported at various angles and one or more holes bored while the operator stands on the floor.

From the foregoing it will be seen that a simple and efficient device is provided whereby one or more holes may be bored at a suitable distance from the operator; that said device or machine is simple in construction and very light; that said device may be readily transported, and that said device may be adjusted to bore holes at the desired angle.

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

1. A machine of the character described, comprising a frame, rotary tool-holding means supported at one end of the frame, a

shaft supported at the lower end of the frame, a sprocket wheel rotatably held to said shaft, a chain operated by said sprocket wheel and connected to rotate said tool-holding means, means for rotating the sprocket wheel, a U-shaped member at the lower end of the frame, a supporting standard, a T-coupling on the upper end of said standard, and a set screw in said coupling engaging and holding the U-shaped member against rotary movement.

2. A boring machine, comprising a frame formed of two tubular standards and a substantially U-shaped connection joining the ends of said standards together, a supporting member comprising two adjustably held parts, a foot-piece held to one of the parts, tool-holding means, a T-coupling at the upper end of said supporting member in which said frame has hinge mounting, a set screw in the coupling securing the frame, and means supported by the frame for operating the tool-holding means.

3. A machine of the character described, comprising a frame formed of two standards and a substantially U-shaped connection joining one of the ends of said standards together, a supporting member comprising two telescopic parts to permit vertical adjustment of the frame tool-holding means, one of said U-shaped members having rotary or hinge connection with the standard, a set screw constructed to lock the frame against movement and means supported by the frame for operating the tool-holding means.

4. A boring machine, comprising a frame formed of two standards and a substantially U-shaped connection joining one end of the standards together, a supporting member comprising two adjustably held parts, a foot-piece held to one of the parts, said U-shaped connection being revolubly held in one of the parts of the supporting member to permit angular adjustment of the frame, and means supported by the frame for operating the tool-holding means.

This specification signed and witnessed at Nashville Tenn. this 10 day of March A. D. 1909.

JOHN H. PARMAN.

Witnesses:

G. W. DAVIS,
F. M. BANKS.