No. 825,479

PATENTED JULY 10, 1906.

J. T. PARKER.

AUGER BIT.

APPLICATION FILED JAN. 10, 1906.

Fig. 1.

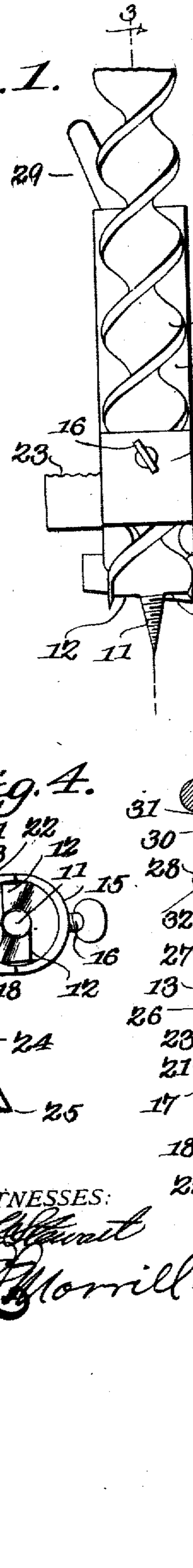

Fig. 2.

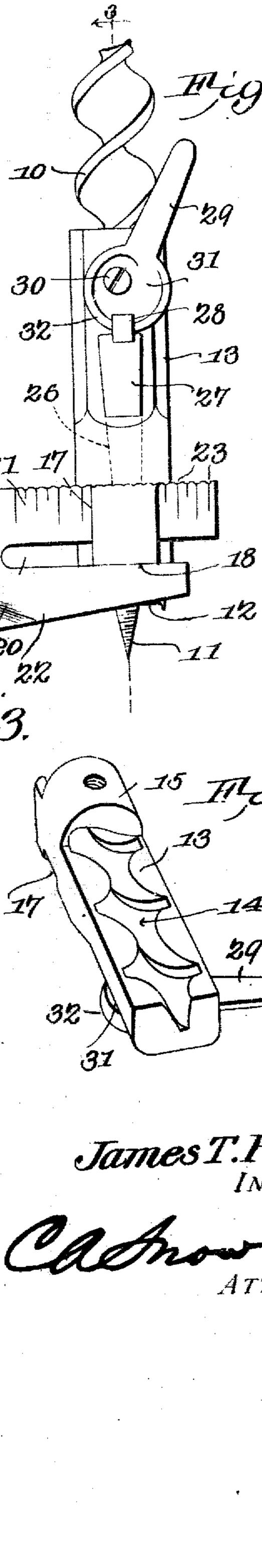

Fig. 3.

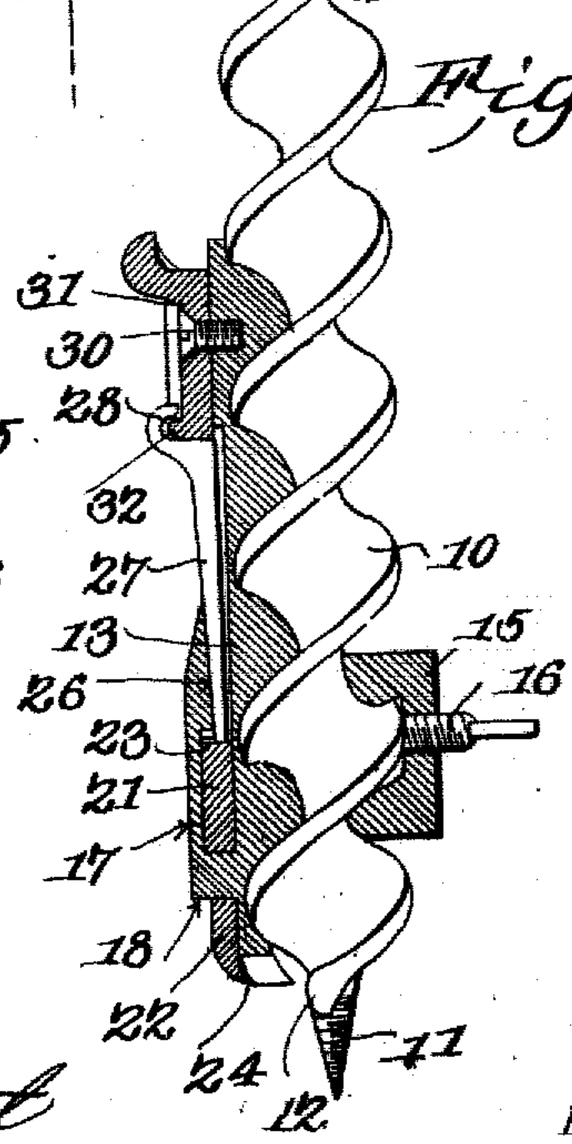

Fig. 4.

Fig. 5.

WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES THOMAS PARKER, OF HATTIESBURG, MISSISSIPPI.

AUGER-BIT.

No. 825,479. Specification of Letters Patent. Patented July 10, 1906

Application filed January 10, 1906. Serial No. 295,514.

To all whom it may concern:

Be it known that I, JAMES THOMAS PARKER, a citizen of the United States, residing at Hattiesburg, in the county of Perry and State of Mississippi, have invented a new and useful Auger-Bit, of which the following is a specification.

This invention relates to adjustable auger-bits, and has for an object to provide a bit embodying new and improved features of economy, simplicity, convenience, and efficiency.

A further object of the invention is to provide improved means for attaching a radially-adjustable auxiliary cutter to an ordinary twist-bit.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made without departing from the spirit or sacrificing any of the advantages of this invention.

In the drawings, Figure 1 is a view of the improved attachment in side elevation applied to an ordinary twist-bit and producing an adjustable bit. Fig. 2 is a view of the bit in reverse side elevation. Fig. 3 is a longitudinal sectional view of the bit, taken on line 3 3 of Figs. 1 and 2. Fig. 4 is a plan view of the lower end of the bit as seen on arrow 4 of Figs. 1 and 2. Fig. 5 is a perspective view of the sheath detached.

Like characters of reference indicate corresponding parts in all of the figures of the drawings.

The attachment forming the subject-matter of this application is adapted to be applied to a twist-bit 10 of the ordinary construction, having the usual worm 11 and cutting edges 12. In its preferred embodiment the improved attachment comprises a sheath, (designated as a whole at 13,) having in one side a cavity 14, proportioned to conform to the spirality of the bit upon which it is to be employed. Adjacent its lower end the sheath is provided with a yoke 15, proportioned to form with that portion of the sheath a complete bit-encircling member, and with a set-screw 16, inserted through the yoke and engaging the periphery of the bit-spirals. Adjacent its lower end the sheath is provided with a transverse mortise 17 and with a groove 18, parallel therewith and at the lowest extremity. Within the mortise and groove is mounted the auxiliary cutter 19, bifurcated by the longitudinal slot 20 to form the parallel arms 21 and 22, the former being disposed within the mortise and the latter within the groove. The arm 21 is provided along its upper edge with serrations or notches 23 and the arm 22 along its lower side with the curved cutting edge 24, terminating in a cutting-point 25. The sheath 13 is provided with an opening 26, extending longitudinally thereof and communicating with the mortise 17. In the opening 26 is slidably mounted a detent 27, provided at its lower end with spaced teeth to engage the serrations of the cutter and at its upper end with an inturned hook 28. Adjacent the upper end of the sheath a lever 29 is pivoted, as at 30, and provided with an eccentric disk 31, having about its periphery a flange 32, also eccentric to the pivot and upon which is engaged the hook 28 of the detent.

In operating the bit to form an ordinary hole the twist-bit will be set relative to the sleeve, with the worm and cutting edges slightly below the lower end. The auxiliary cutter 19 will then be adjusted to cut a hole of the desired size by drawing the detent out of contact with the serrated edges and slidably moving the cutter in either direction as occasion may require, the desired portion being readily determined by the relation of the scale upon the cutter-arm to the edge of the mortise. When the desired adjustment has been secured, the cutter is locked by rotating the lever about its pivot, thereby forcing the detent into binding engagement with the cutter. It is obvious that the twist-bit may be extended to any approved distance beyond the auxiliary cutter, thereby producing a tool capable of boring a hole larger at the top at the same operation.

Having thus described the invention, what is claimed is—

1. In an auger, a bar molded to fit one side of the auger and provided with a yoke adapted to embrace said auger, a radially-adjustable cutter sildably mounted in the yoke and provided with a serrated edge, a detent carried by the bar and arranged to engage the serrated edge of the cutter. and an eccentric for operating the detent.

2. In a twist-auger, a bar molded to fit one

side of the auger and provided with a yoke adapted to embrace the auger, said yoke being provided with a transverse mortise and a terminal shoulder, means for detachably securing the bar to the auger, and a radially-adjustable cutter formed with spaced arms one of which engages the mortise and the other the shoulder.

3. In an auger, a bar molded to fit one side of the auger and provided with a yoke adapted to embrace the auger, a cutter slidably mounted in the yoke and having a serrated edge, a detent carried by the bar and adapted to engage the serrated edge of the cutter, and means piercing the yoke and engaging the auger for securing the bar in position on said auger.

4. In a twist-auger, a bar molded to fit one side of the auger and provided with a yoke adapted to embrace said auger, there being a transverse mortise formed in the yoke, an auxiliary cutter slidably mounted in the mortise at the cutting edge of the auger and adjustable radially with respect to said auger, and means for clamping the auxiliary cutter in adjusted position.

5. An adjustable auger comprising an auger-bit having a worm and a cutting edge, a bar molded to fit one side of the auger and provided with a yoke embracing said auger at the cutting edge thereof, a cutter slidably mounted in the yoke and provided with a serrated edge, a detent slidably mounted on the bar for engagement with the serrated edge of cutter and provided with a terminal hook, and an eccentric engaging said hook for moving the detent to operative position.

6. An adjustable auger comprising a twist-bit having a worm and a cutting edge, a bar molded to fit one side of the bit and provided with a yoke adapted to embrace the auger, means for clamping the bar on the auger, a radially-adjustable auxiliary cutter slidably mounted in the yoke and having a serrated edge, a detent slidably mounted on the bar and adapted to engage the serrated edge of the cutter, and an eccentric engaging the detent and provided with an operating-handle for moving the detent to operative and inoperative position.

7. An adjustable auger comprising a twist-bit having a worm and a cutting edge, a sheath disposed upon the bit and molded to conform to the spirality of the bit, means for clamping the sheath and bit together, an auxiliary cutter slidably mounted on the sheath and having a serrated edge, a detent carried by the sheath and adapted to engage the serrated edge of the cutter, a hook carried by the detent, and a lever pivoted upon the sheath and having an eccentric flange engaging the hook for operating the handle.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES THOMAS PARKER.

Witnesses:
J. M. WESSON, Jr.,
W. T. SMITH.