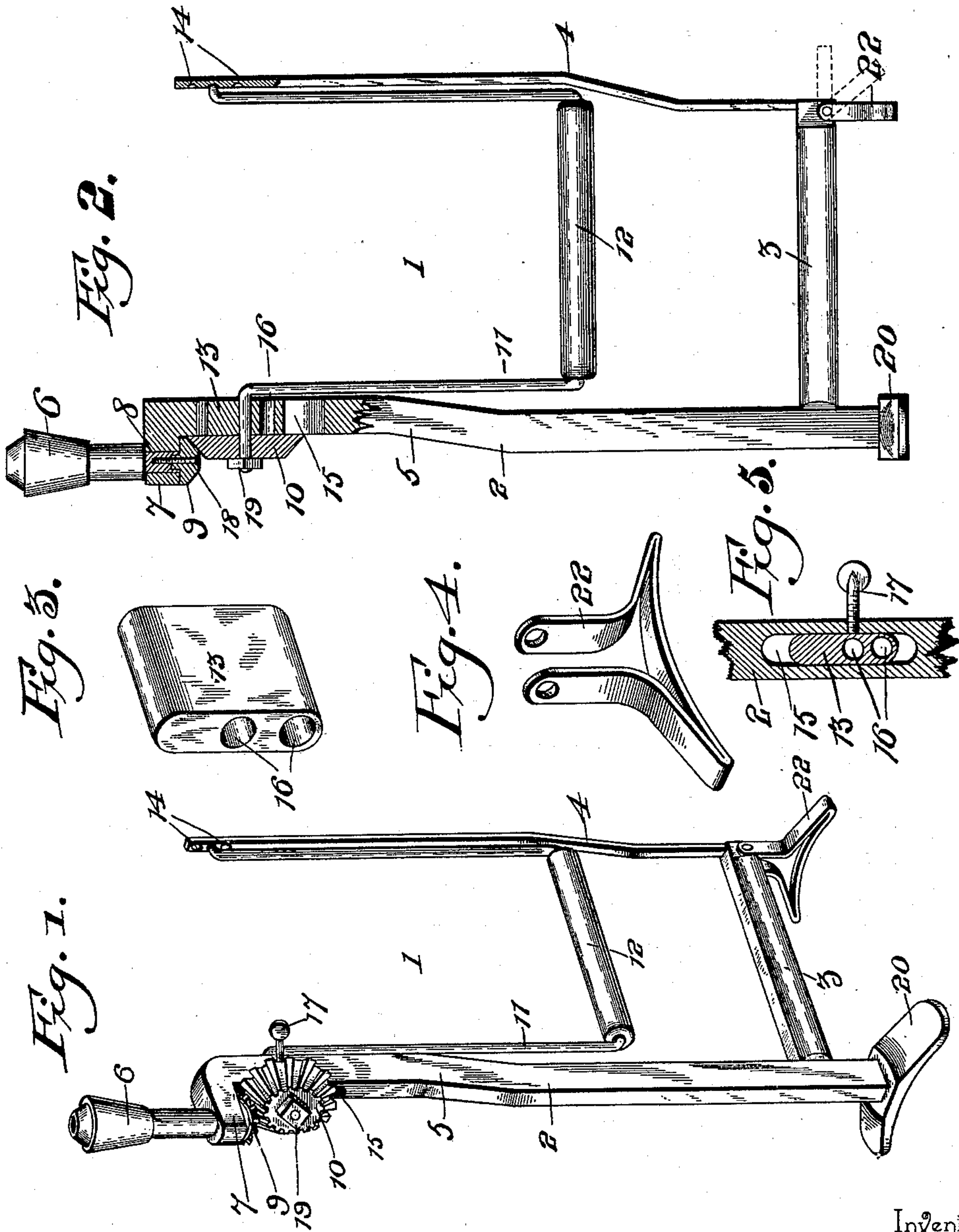


(No Model.)

K. L. MARLIN.
BIT STOCK.

No. 596,604.

Patented Jan. 4, 1898.



Witnesses

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KEMUEL LEMUEL MARLIN, OF THETA, TENNESSEE.

BIT-STOCK.

SPECIFICATION forming part of Letters Patent No. 596,604, dated January 4, 1898.

Application filed June 30, 1897. Serial No. 642,953. (No model.)

To all whom it may concern:

Be it known that I, KEMUEL LEMUEL MARLIN, a citizen of the United States, residing at Theta, in the county of Maury and State of Tennessee, have invented a new and useful Bit-Stock, of which the following is a specification.

The invention relates to improvements in bit-stocks.

10 The object of the present invention is to improve the construction of bit-stocks and to provide a simple, strong, and efficient one, which will enable holes to be rapidly bored adjacent to walls or other obstructions without employing ratchet mechanism.

15 A further object of the invention is to enable the parts to be readily adjusted for accommodating gear-wheels of different diameters, so that gearing suitable to the character of bit used may be employed.

20 Another object of the invention is to improve the construction of the frame of the bit-stock, to provide convenient breast-rests, and to enable an operator to exert the desired pressure without liability of injuring the crank.

30 The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

35 In the drawings, Figure 1 is a perspective view of a bit-stock constructed in accordance with this invention. Fig. 2 is a side elevation, partly in section, the pivoted rest being swung to one side. Fig. 3 is a detail perspective view of the adjustable bearing. Fig. 4 is a similar view of the pivoted rest. Fig. 5 is a detail sectional view illustrating the manner of mounting the bearing-block.

40 Like numerals of reference designate corresponding parts in the several figures of the drawings.

45 1 designates the frame of a bit-stock, comprising a main side bar 2, a transversely-disposed stationary grip or bar 3, and a longitudinal bracing-bar 4, disposed substantially parallel with the bar 2 and extending from one end of the grip 3. The longitudinal bar 3 has its outer portion 5 inwardly offset by a central bend to bring a rotary bit-socket 6 in line with the pressure exerted on the device

and also to locate the said bit-socket close to the edge of the longitudinal bar 2 in order that holes may be bored close to walls or similar obstructions. The longitudinal bar 2, which is provided with an outwardly-extending arm 7, has a bearing at the outer end thereof to receive a shank or journal 8 of the rotary bit-socket. A pinion 9, which is arranged on the inner edge of the arm 7, is detachably secured to the end of the shank or journal and meshes with a gear-wheel 10, which is detachably secured to one side of a double crank 11.

65 The double crank 11, which is provided with a rotary grip 12, has one side journaled in an adjustable and reversible bearing-block 13, and the other side of the crank is adapted to engage any one of a series of bearing openings or sockets 14 of the bracing-bar 4. The reversible and adjustable bearing-block, which has its ends rounded, is arranged in a longitudinal slot 15 of the bar 2, and it is provided with two bearing-perforations 16, located at the center and one end of it. By reversing the bearing-block the end opening or perforation may be brought adjacent to either end of the slot 15 for accommodating very small and very large gear-wheels. The longitudinal adjustment of the block will accommodate the medium class of gears. The bar 2 is provided with a threaded perforation receiving a clamping-screw 17, which engages the bearing-block and secures the same at any desired adjustment. When the bearing-block is adjusted, the other side of the crank is correspondingly adjusted. The pinion 9 is secured to the bit-socket by means of a screw 18 or other suitable fastening device, and the gear-wheel 10 is preferably secured to the crank by a nut 19.

80 The gear-wheels are readily detached to permit the desired adjustment of the parts, and gears of different diameters may be employed, so that a gear suitable to the character of the bit used may be employed. The large bits require great leverage, and in the use of such gear is preferably employed which will produce one revolution of the bit-socket to each revolution of the crank; but in the use of smaller bits the bit-socket may be rotated to any desired extent by varying the diameters of the gears.

The longitudinal bar 2 is extended slightly beyond the rigid grip 3 and has a stationary breast-rest 20 secured to it and arranged directly opposite the bit-socket in order to bring the pressure directly in line with the bit. The stationary breast-rest is located at one side of the frame, and a movable rest 22 is pivotally mounted at the opposite side of the frame and is attached to one end of the grip 3, adjacent to the inner end of the bar 4. The grip 3 is reduced adjacent to the bar 4, and the pivoted rest 22, which is adapted to be swung out of the way when not in use, consists of a curved bearing portion and a pair of converging arms embracing the grip 3 at the reduced portion thereof. The bar 4 is provided with an extension which is secured to the back of the grip 3; but the frame may be connected in any other suitable manner.

This invention has the following advantages: The bit-stock is simple, strong, and durable and easily manipulated, and it is capable of boring holes adjacent to walls or similar obstructions. It will enable any amount of pressure to be employed without liability of bending the crank portion, and in drilling or boring close to obstructions it permits a free forward rotation of the bit and does not require the use of ratchet mechanism, which is operated by backward-and-forward movement and which requires a much greater time to bore a hole. The gearing may be readily changed to suit the character of bit employed, so that the greatest leverage may be employed when large bits are used and so that small bits may be rapidly rotated.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. In a bit-stock, the combination of a frame comprising a longitudinal bar provided at one end with a breast-rest and having a bearing at its other end, said bar being bent between its ends and inwardly offset to bring the bear-

ing in line with the pressure exerted on the breast-rest, a rigid grip extending from the longitudinal bar at a point adjacent to the breast-rest, and a longitudinal supporting-bar extending from the grip and arranged substantially parallel with the longitudinal bar, a rotary bit-socket journaled in the said bearing, and a crank journaled on the sides of the frame and connected by gearing with the bit-socket, substantially as described.

2. In a bit-stock, the combination of a frame comprising a longitudinal bar provided with a bearing at one end, a breast-rest secured to the other end of the bar, a rigid grip extending from the longitudinal bar at a point adjacent to the breast-rest, and the longitudinal supporting-bar extending from the grip and arranged substantially parallel with the said longitudinal bar, a pivoted breast-rest mounted on the grip and arranged in line with the stationary breast-rest and adapted to be swung out of the way when not in use, a rotary bit-socket journaled in the said bearing, a crank journaled on the sides of the frame, and gearing connecting the crank and the bit-socket, substantially as described.

3. In a bit-stock, the combination of a frame provided at one side with a series of bearing-sockets and having a longitudinal slot at the opposite side, an adjustable and reversible bearing-block arranged in said slot and provided with bearing-perforations, a double crank journaled in one of the bearing-sockets and in one of the perforations of the bearing-block, a rotary bit-socket, removable gearing connecting the bit-socket with the adjacent end of the crank, and means for securing the bearing-block at the desired adjustment, substantially as described.

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

KEMUEL LEMUEL MARLIN.

Witnesses:

J. M. HARBISON,
J. K. RAGSDALE.