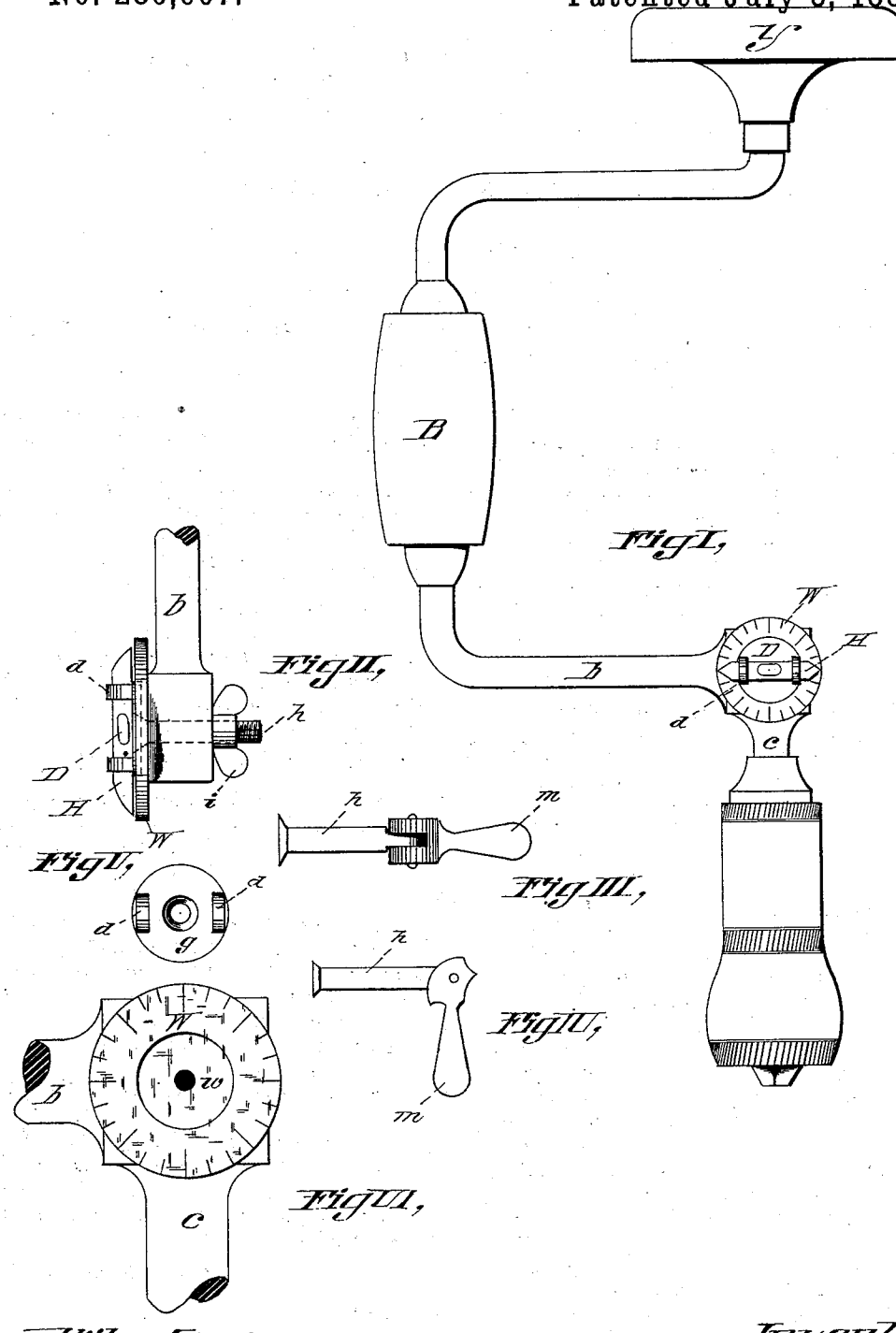
(No Model.)

F. GRANT.

BIT STOCK.

No. 280,607. Patented July 3, 1883.



Witnesses,
A. N. Bowers
R. F. Hyde

Inventor,
Frank Grant
by Henry A. Chapin
Atty

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

FRANK GRANT, OF CHESTER, MASSACHUSETTS.

BIT-STOCK.

SPECIFICATION forming part of Letters Patent No. 280,607, dated July 3, 1883.

Application filed April 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANK GRANT, a citizen of the United States, residing at Chester, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Bit-Stocks, of which the following is a specification.

This invention relates to improvements in bit-stocks; and it consists in the combination, with a bit-stock, of a dial-plate, and of a level adjustably secured to the bit-stock in front of said plate, the object of this invention being to provide improved leveling and plumbing devices for bit-stocks.

In the drawings, Figure I is a side elevation of a bit-stock having my improvements. Fig. II is an enlarged end view of a part of a bit-stock having my improvements, and Figs. III, IV, V, and VI are enlarged details.

B represents a bit-stock of ordinary construction, except that at the angle where the lower member, *b*, of the handle joins the center shank, *c*, is hinged the level D. As shown, the stock is slightly enlarged at this point to seat a dial-plate, W, in the plane of the axis of the bit.

The bubble-glass H, being set off from the side of the dial, can have its bubble visible either from one side of the stock, as shown in Fig. I, or from the direction of the pressure-button *y*, as shown in Fig. II, and the position of glass H being adjustable, it will be seen that when arranged as shown in Figs. I and II any departure from a perpendicular in the bore made by the bit will be shown by the bubble. When arranged at right angles to the position shown, and parallel to the axis of the bit, a bore in a horizontal plane is insured, and when the glass is set to cause the bore to be at any required angle to the horizon at the completion of every revolution of the bit the glass serves to maintain the direction or correct any departure therefrom. An effective and simple way of constructing and arranging the level is shown in the drawings.

The dial W is formed upon or secured to an enlargement of the stock B, and in a countersink, *w*, in the dial-plate rests the bubble-case *g*. The case *g* is perforated centrally on a bevel, as seen in Fig. V, and receives the corresponding head of a bolt or screw, *h*, which passes through the stock, as seen, to be held by a thumb-nut, *i*, or cam-handle *m*, bearing upon a surface of the stock, by means of which the bubble-case may be quickly set and secured.

The glass H is held by loops *d*, forming the case proper, and setting off the glass from the dial. The projecting ends of the glass form pointers in proper position relative to the scale.

Without a departure from the spirit of my invention the level may be arranged upon any convenient part of the stock, and in place of one glass made adjustable to varying angles, two levels at right angles to each other may be permanently fixed at different parts of the stock.

Now, having described my invention, what I claim is—

A bit-stock having the dial-plate W secured thereto, the bubble-glass case *g*, secured adjustably in front of said dial-plate, and the bubble-glass H, combined and operating substantially as set forth.

FRANK GRANT.

Witnesses:
A. E. TODD,
N. A. HARWOOD.