

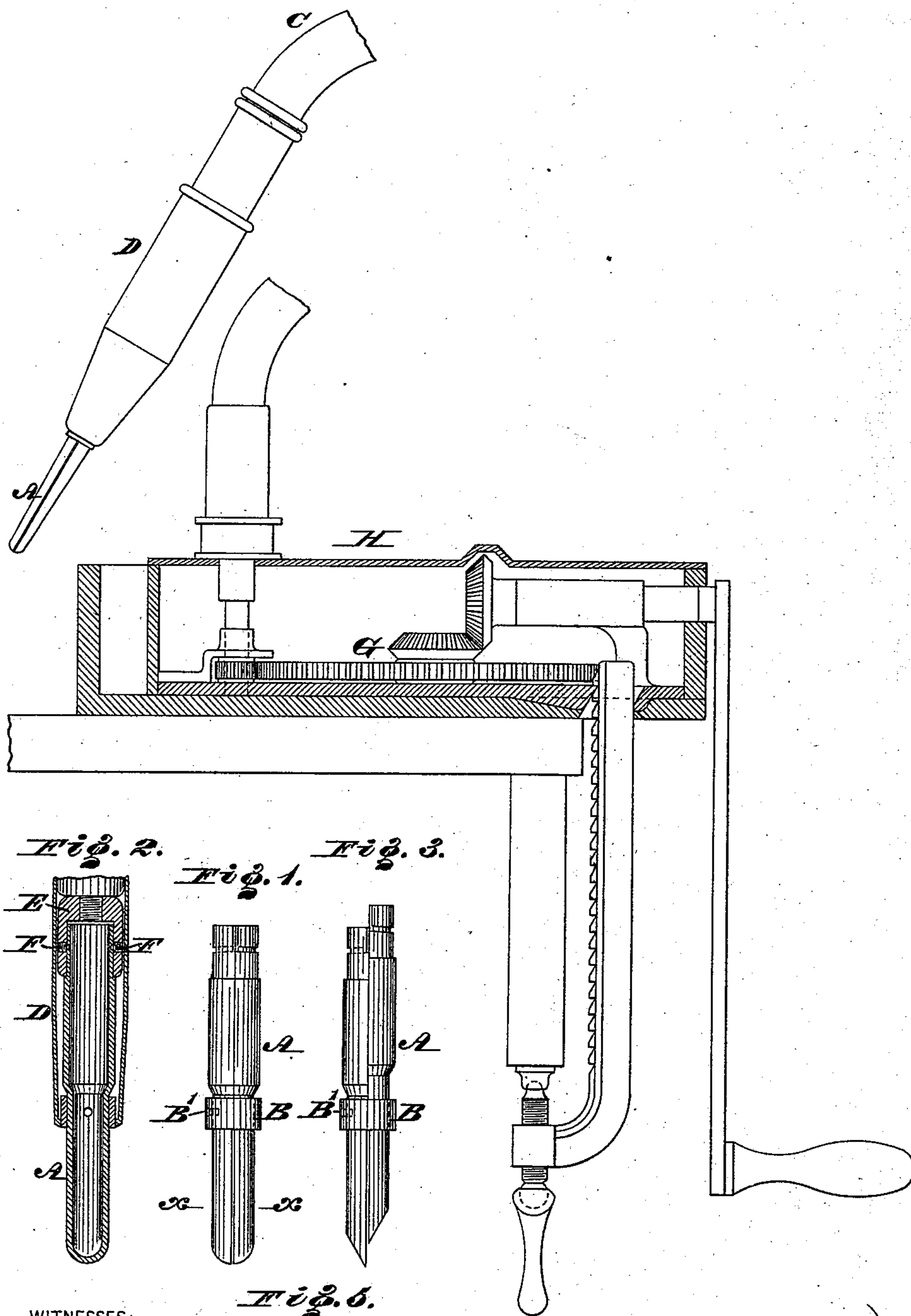
(No Model.)

M. QUASS.
BORING TOOL.

No. 376,906.

Patented Jan. 24, 1888.

Fig. 4.



WITNESSES:
Th. Rollé.
L. Douville

Fig. 6.

INVENTOR:
Max Quass.
BY *John A. Diederichsen*
ATTORNEY.

UNITED STATES PATENT OFFICE.

MAX QUASS, OF PHILADELPHIA, PENNSYLVANIA.

BORING-TOOL.

SPECIFICATION forming part of Letters Patent No. 376,906, dated January 24, 1888.

Application filed April 27, 1887. Serial No. 236,364. (No model.)

To all whom it may concern:

Be it known that I, MAX QUASS, a subject of the Czar of Russia, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Boring-Tools, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to improvements in boring-tools; and it consists in forming the same in sections, as hereinafter described and claimed, the sections being clamped together by external bands, readily permitting their separation for purposes of sharpening, cleaning, &c.

Figures 1 and 3 represent a side elevation of a boring-tool embodying my invention. Fig. 2 represents a longitudinal section of the tool and connected sleeve. Fig. 4 represents a partial side elevation and partial vertical section of the tool and a flexible shaft, and a vertical section of the motor therefor. Fig. 5 represents a cross section of a tool embodying my invention on line *x x*, Fig. 1.

Referring to the drawings, A represents the tool, which is formed in sections, each consisting of a semi-cylindrical shell, *a*, with its forward end rounded or pointed, the two sections being placed together edge to edge and clamped by a sleeve, B, and screw B', as will be seen in Figs. 1 and 3, the edges of the sections overlapping, as in Fig. 5, whereby said edges produce cutting-edges *b* in the direction of the length of the tool.

When the tool is rotated, it is presented to the wood to be bored and forced against the same, whereby it enters the wood, forms an opening therein, and smoothly cuts or shaves

the face of the bore. Again, the tool may be used to enlarge openings previously made, and also shave or smooth the face of such openings.

The sections or shells *a* may be separated for sharpening purposes and removal of clippings, &c., that may have collected between them, although the tool clears itself of such matters through the open sides of the tool formed by the overlapping edges thereof.

The tool is connected with a flexible shaft, C, by means of the sleeve D, head E, and screws F, which latter engage with a groove in the tool.

The shaft receives motion from gearing G, mounted in a box, H, and operated by a crank-shaft, treadle, &c., said boxes being provided with a clamp, whereby it may be secured to a table or elsewhere.

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

1. A boring-tool consisting of semi-tubular sections with sloping forward ends and overlapping cutting side edges and a clamping-sleeve, substantially as described.

2. A boring-tool consisting of sections having rounded forward ends and overlapping edges, substantially as and for the purpose set forth.

3. The combination of a boring-tool composed of tubular sections with overlapping edges, with the sleeve D, the head E, the screws F, and flexible shafting C, substantially as described.

MAX QUASS.

Witnesses:

JOHN A. WIEDERSHEIM,
JAS. F. KELLY.