

EDWARD H. SMITH.

Improvement in Blind Stile Boring Machines.

No. 120,465.

Patented Oct. 31, 1871.

Fig:1.

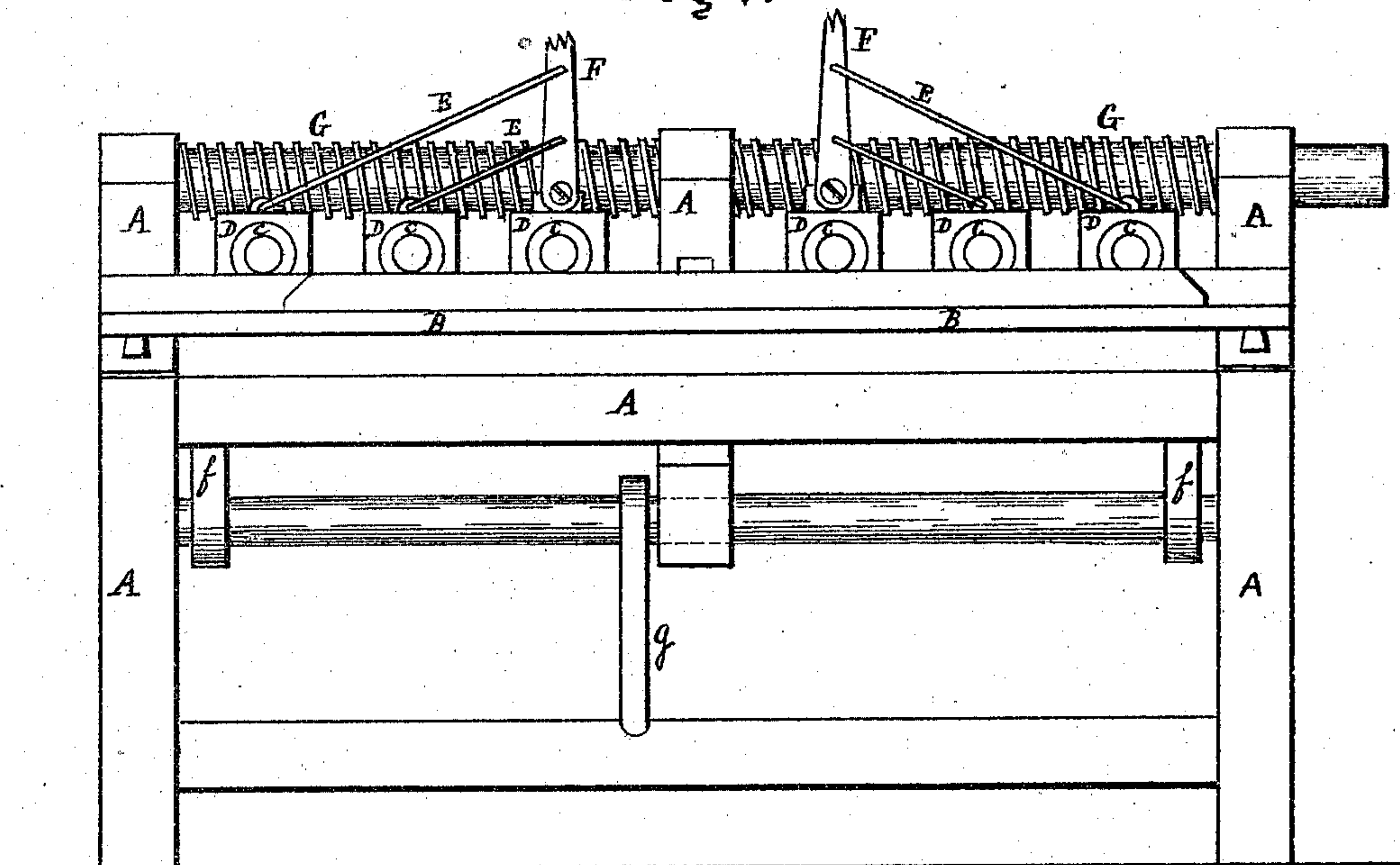
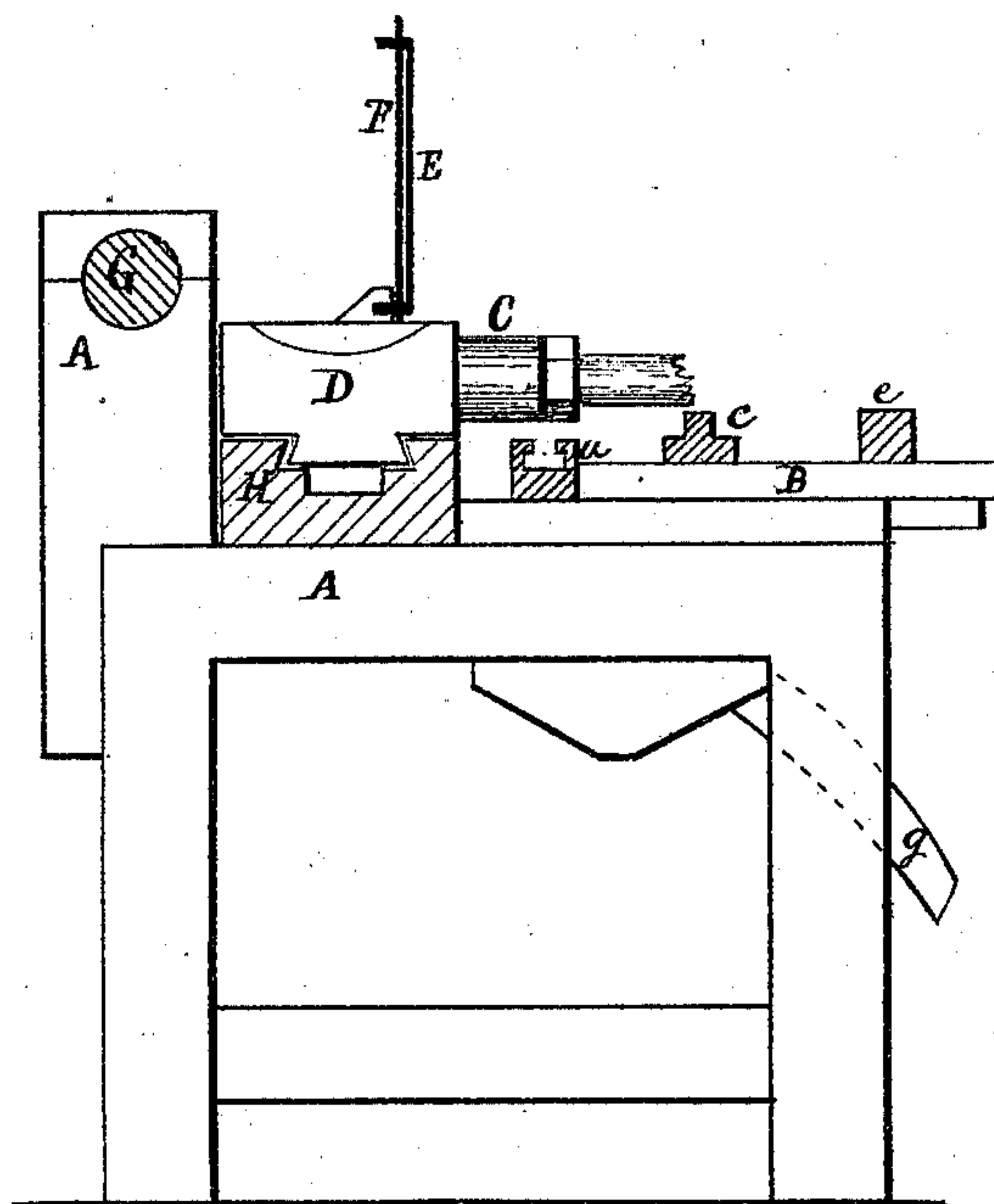


Fig:2.



Witnesses,

A. C. Crondal  
Richard Garner.

Inventor,

Edw. H. Smith  
per Henry Garner  
his Attorney.

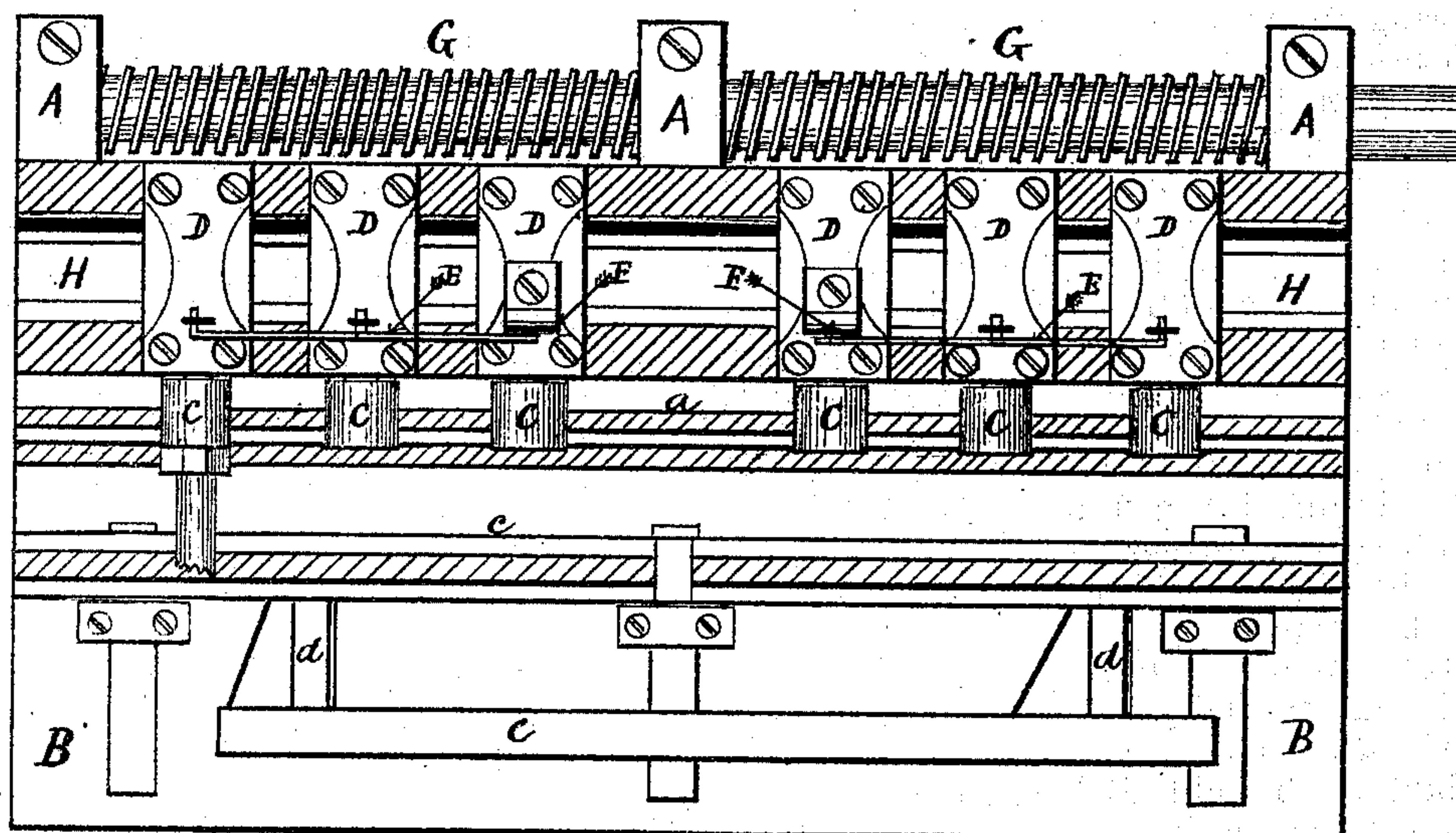
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Fig. 3.



Witnesses.

A. C. Crundall.  
Richard Garner.

Inventor.

Edw. H. Smith  
per Henry Garner  
his Attorney.



# UNITED STATES PATENT OFFICE.

EDWARD H. SMITH, OF WHITESTOWN, NEW YORK, ASSIGNOR OF ONE-HALF HIS  
RIGHT TO ROBERT GIBSON, OF SAME PLACE.

## IMPROVEMENT IN BLIND-STILE BORING-MACHINES.

Specification forming part of Letters Patent No. 120,465, dated October 31, 1871.

*To all whom it may concern:*

Be it known that I, EDWARD H. SMITH, of Whitestown, Oneida county, State of New York, have invented certain Improvements in Blind-Stile Boring-Machines, of which the following is a specification:

My invention relates to a combination which will securely hold the blind-stile in a certain position, so that as many holes as may be desired and found convenient can be bored therein at the same time by aid of a number of bits adjusted in rotating spindles, which obtain the desired motion by aid of an endless screw, the spindles and bits to be placed at any desired distance apart by aid of two levers, to which as many rods are connected as spindles are employed.

Sheet 1, Figure 1, is a front elevation of a machine embodying my invention. Fig. 2 is a side elevation of the same. Sheet 2, Fig. 3, is a top view of the same.

A is the frame of the machine, which frame should be substantially constructed so as to resist the vibration of the operating parts. A blind-stile is laid on the table B between two lines of markers, *a a*, the markers for the one side being in the groove in the inner edge of the table, rising high enough to strike the stile, and held in position by set-screws or bolts, the markers on the opposite side being on a movable bar, *c*, and held in position by set-screws, said bar being moved up and back by means of two or more cams or levers, *d d*. The stems of said cams or levers are attached to a rod, *e*, parallel with the bar *c*. By this movement of the rod the bar, on which are the markers, is thrown up to the blind-stile, and pressing it against the first line of markers, thus marking out the mortise and both sides at the same time, holding the blind-stile in

position for boring. For the purpose of holding the bits in line and position the shanks of the bits are screwed into the end of the spindles, where they are adjusted by means of check-nuts. The table bearing the blind-stile is moved by means of a lever, *f*, on the under side, attached to both ends of the table, and worked by the handle *g*. In order to place the spindles C in proper position boxes D are employed with proper bearings, in which the spindles revolve, said boxes sliding in a groove, *h*, and held in position by gib and set-screws. The distances between the spindles and bits are increased or reduced by means of rods E E, attached to the boxes of the spindles and to the two levers F F. By the movement of the said levers all the bits are placed at certain equal distances apart, as desired. The two center boxes are stationary and the others movable, so as to adjust the distance between the center bits, by aid of bolts and set-screws, through a slot in the bed of the machine. For the purpose of obtaining a rotary motion to the spindles and bits a screw-and-worm gear, G, is employed, which again derives its motion from any desired power.

Having thus fully described my invention, I desire to claim—

The frame A, in combination with the table B, the markers *a a*, the movable bar *c*, the levers *d d*, the rod *e*, the lever *f*, the spindles C, and boxes D, the rods E E, and levers F F, and working-gear G, substantially as and for the purpose hereinbefore set forth.

EDWARD H. SMITH.

Witnesses:

A. C. CRONDAL,  
RICHARD GERNER.

(30)