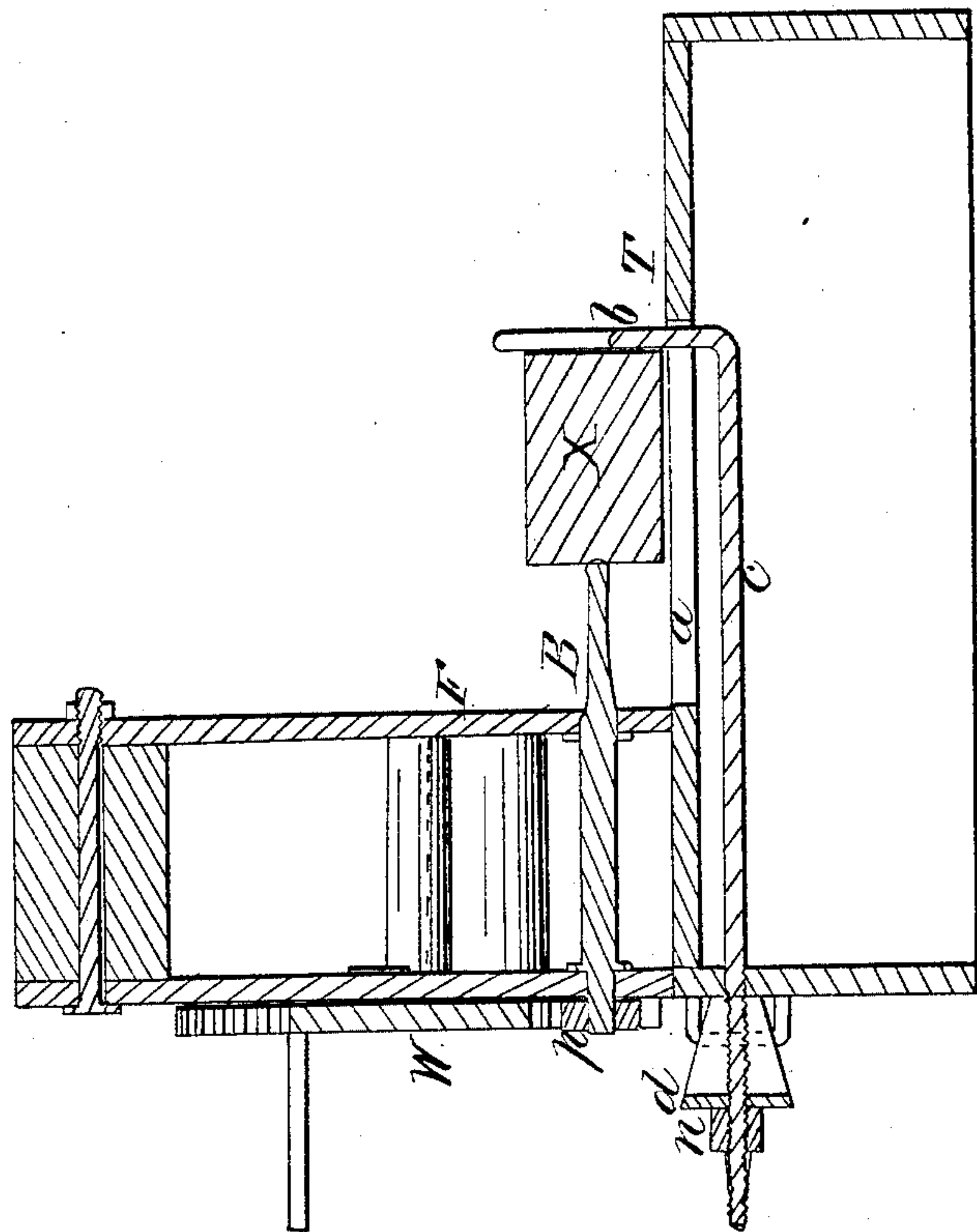


*L. B. Lloyd,*  
*Boring Wood.*

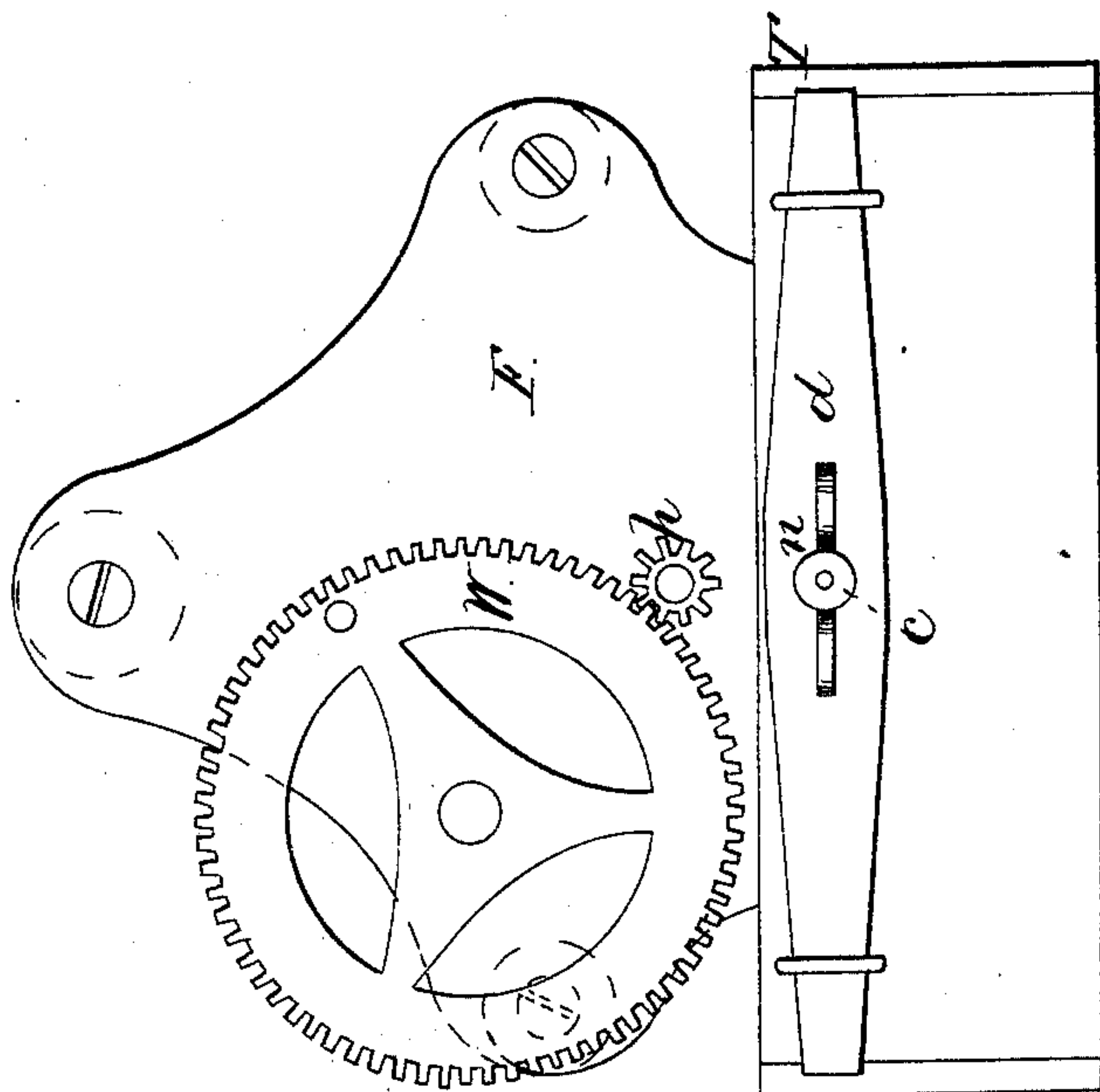
*N<sup>o</sup> 17,630.*

*Patented June 23, 1857.*

*Fig: 2.*



*Fig: 1.*



# UNITED STATES PATENT OFFICE.

LEVI B. LLOYD, OF WARWICK TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA.

DEVICE FOR FINDING AND LIMITING THE DEPTH OF HOLE IN BORING-MACHINES.

Specification of Letters Patent No. 17,630, dated June 23, 1857.

*To all whom it may concern:*

Be it known that I, LEVI B. LLOYD, of Warwick township, in the county of Chester and State of Pennsylvania, have invented a  
5 new and useful Improvement in Boring-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed  
10 drawing, forming part of this specification, in which—

Figure 1 is a front elevation, and Fig. 2 a sectional view of my machine.

Similar characters of reference denote the  
15 same part.

The object of my invention is the feeding of the stuff to be perforated, so as to give any required depth of hole; the boring being  
20 stopped when the desired penetration is effected.

The nature of the invention consists of the combination of a spring and draw rod arranged and operating as will be described.

In the drawing T is the table on which the  
25 block to be bored is placed. It has a slot *a* through which protrudes an arm *b* of the draw rod *c*. This rod passes through a

strong spring *d* acting against the edge of the table, and has a screw thread and nut on this extremity. The bit B is held on a frame F 30 and is turned through wheel W and pinion *p*.

The block X is laid upon the table T with vertical branch of the draw rod behind it, the face of the block being against the point of the bit. The nut *n* is then turned upon the 35 thread of the draw rod, forcing the spring *d* toward the edge of the table a distance equal to the required depth of perforation. The bit is then turned, and the rising of the spring always keeps the block within the action of 40 the bit, until the spring ceases to exert any power; which will be when the perforation has reached the required depth.

I claim—

The combination of spring, draw rod, and 45 table, arranged and operating as described.

In testimony whereof, I have hereunto signed my name before two subscribing witnesses.

LEVI B. LLOYD.

Witnesses:

EVAN SHEELER,  
JOHN D. FILMAN.