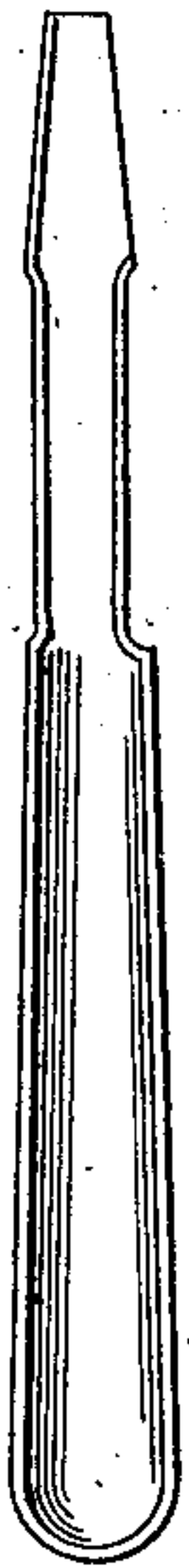


*R. Cook,*  
*Wood Auger.*  
*N<sup>o</sup> 81,069.      Patented Aug. 18, 1868.*

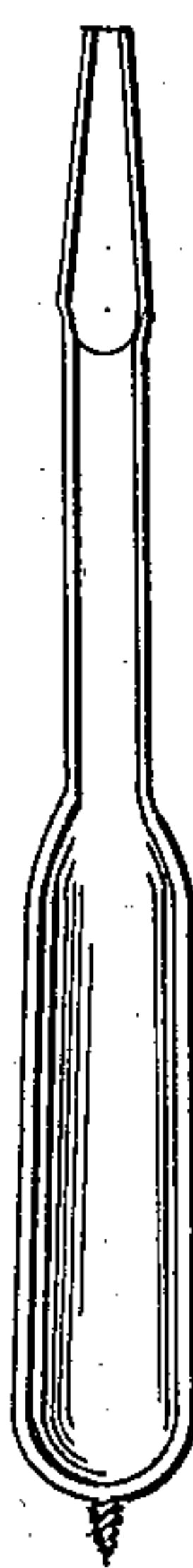
*Fig 1*



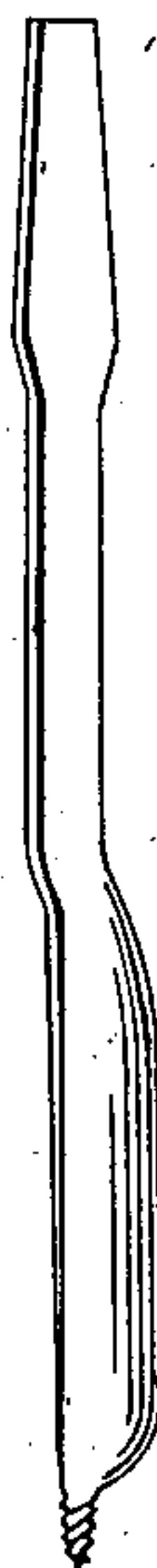
*Fig 2*



*Fig 3*



*Fig 4*



*Witnesses:*

*E. H. Cook,*  
*M. C. Cook*

*Inventor:*

*Ransom Cook.*

# United States Patent Office.

RANSOM COOK, OF SARATOGA SPRINGS, NEW YORK.

*Letters Patent No. 81,069, dated August 18, 1868.*

## IMPROVEMENT IN BITS FOR BORING WOOD.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, RANSOM COOK, of Saratoga Springs, in the county of Saratoga, and State of New York, have invented a new and useful Improvement on Spoon-Bits, the nature of which invention consists in the form of a spoon-bit, with a screw or centre point, thereby enabling persons using such centred spoon-bit to commence and bore a hole with accuracy at the place desired; 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 drawings, making a part of this specification, in which—

Figure 1 is a view of the concave side of the ordinary spoon-bit.

Figure 2, a view of the same on one of its narrow sides.

Figure 3, a view of the concave side and centre point of my improved spoon-bit; and

Figure 4 a view of one of the narrow sides of the same implement.

In manufacturing my improved spoon-bit, I forge the shank and plate the part for the pod in the ordinary manner, with the addition of forming a projection at the lower end of the pod, to be shaped into a centre. The pod and centre are subsequently formed with swages or dies. The concave part of such dies is cut sufficiently deep to bring the centre of the bit in the middle of the hole it bores. A screw is cut on the centres of the larger sizes of these bits, but it is not necessary on the small ones. I file the centres square, or nearly so, in all cases, thus removing the greater part of the threads of the screws, and enabling those without screws to enter the wood easily. These centres should be shorter and smaller than those used on twist-bits, their function being merely to secure accuracy in commencing the hole the bits are to bore, and not necessary to draw the bit into the wood, as in twist-bits. The speed or expedition in boring with common spoon-bits being regulated by pressure upon the bit-stock, they are easily made to bore much faster in soft woods than in those which are hard. It is to preserve this advantage as far as possible that I leave the centres in my improved bit so small as to give hardly a perceptible resistance when entering the wood. So much of the threads of the screw on the larger sizes are cut away, that those remaining present no apparent obstruction to boring in soft woods much faster than the screw, if left round, would feed, while the remaining threads of the screw do aid in drawing the bit into the wood when it is of a hard kind; still, the hold of the screw, even in hard wood, should be so feeble as to permit the sudden withdrawal of the bit from the hole while continuing to turn it, as if boring, thus retaining that valuable quality of the common spoon-bit, of removing the chips entirely from the hole bored by it, for if, as with auger-bits, the hold of the screw is so strong as to require the turning of the implement backwards before removing it, chips are generally left in the bottom of the hole. As the motion of the spoon-bit, when in use, is like that of a gouge if applied to the same purpose, or, to speak more plainly, it swings around the circle while boring, its thin, weak edge is supported by the contact of the back or outside of the bit with the interior face of the hole it is making. It is, therefore, essential that the centre point of the bit should be so formed and adjusted as to permit such contact.

I do not claim the "borer" shown in plate 79, figs. 1 and 2, of "Hulssis Allgemine Maschinen Encyclopädie," vol. ii, such device being the well-known pod-auger, with a lip or cutter at the lower end or point thereof, the edge of the cutter drooping somewhat from a right angle with its pod, and projecting forward beyond the edges of the pod in the shape of a half moon, said lip having, in the case referred to, a screw centre, to draw the borer into the wood, while the spoon-bit, both in shape and action, differs from the pod-auger, having in shape no projecting cutter known as a lip, but it performs its cutting with the curved edge of the pod or spoon at the lower end of it.

What I claim as my invention, and desire to secure by Letters Patent, is—

The improved spoon-bit, constructed substantially as hereinbefore set forth.

RANSOM COOK.

Witnesses:

M. T. COOK,

E. R. COOK.