

(No Model.)

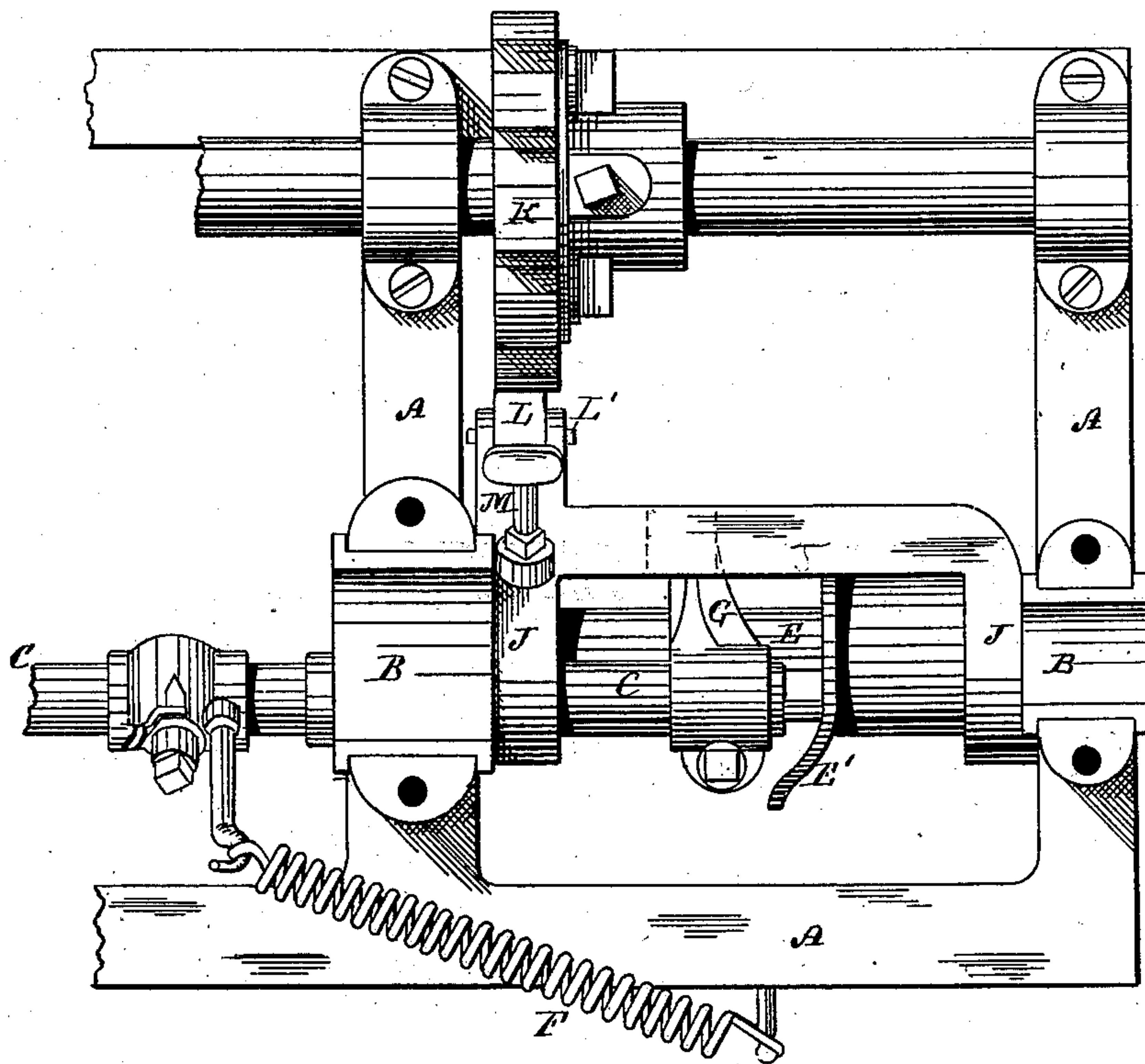
2 Sheets—Sheet 1.

A. S. COOK.  
WOOD SCREW MACHINE.

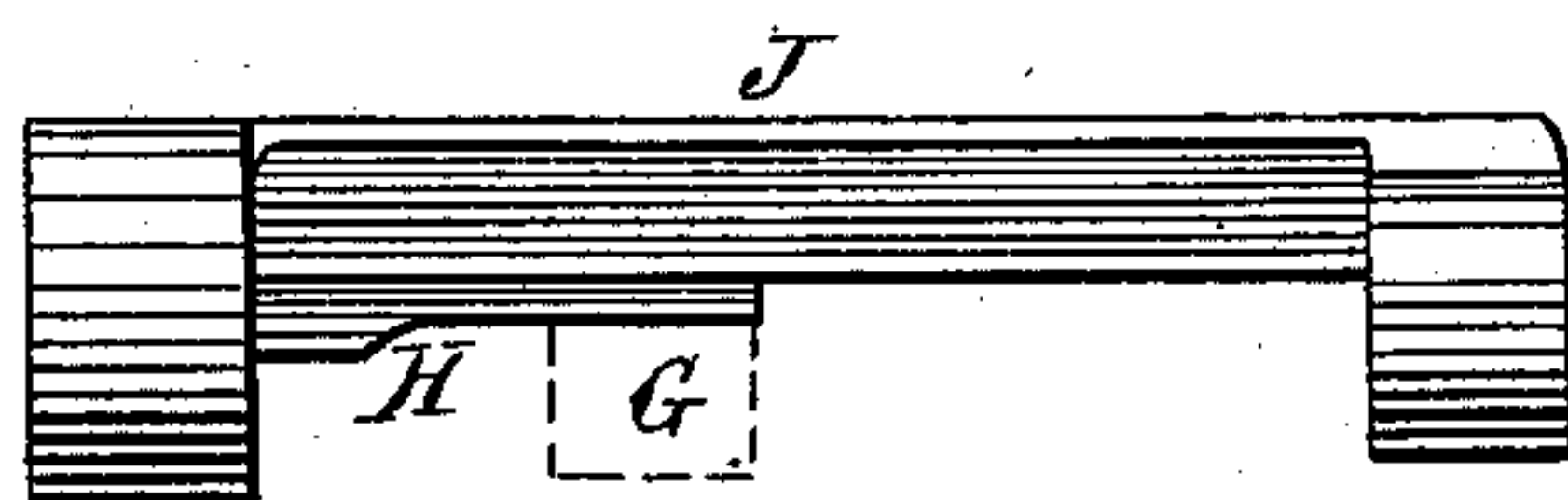
No. 256,546.

Patented Apr. 18, 1882.

*Fig. 1.*



*Fig. 4.*



Witnesses.

Chas. L. Burdett.  
Edwin F. Dimock.

Inventor.

Asa S. Cook  
by Theo. G. Ellis, attorney

(No Model.)

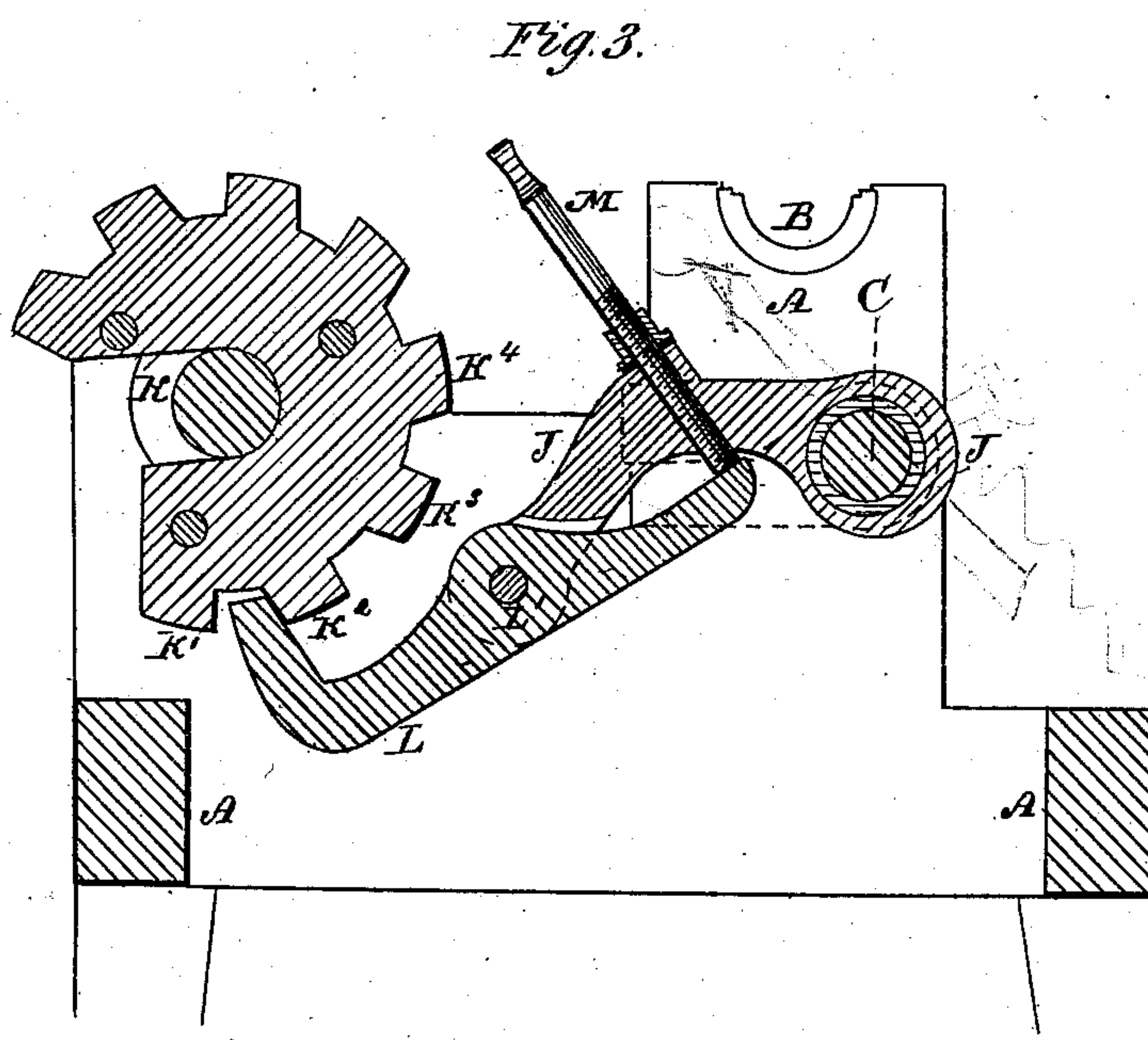
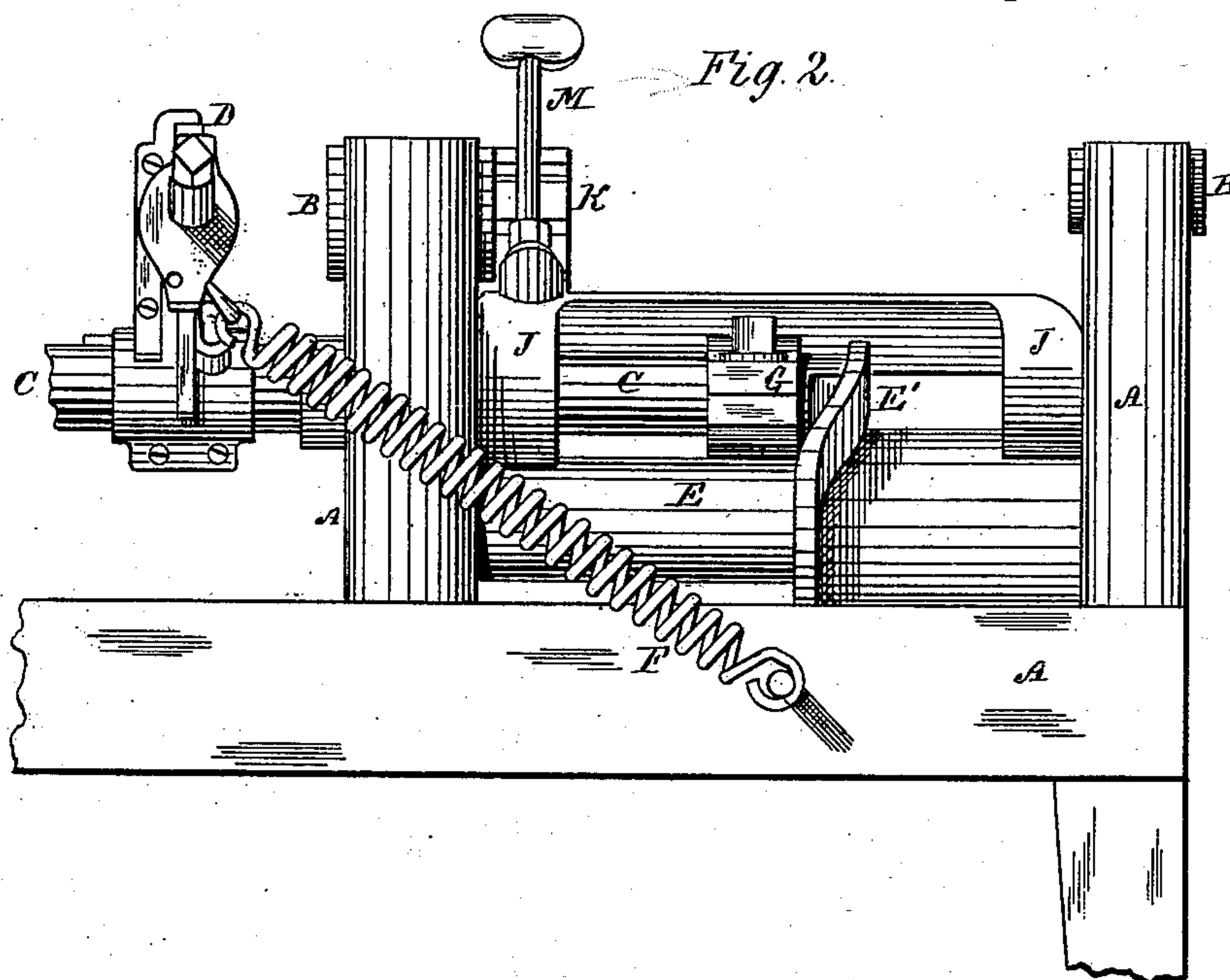
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Edw. F. Dimock.

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A. S. Cook  
by Chas. G. Ellis, Attorney



# UNITED STATES PATENT OFFICE.

ASA S. COOK, OF HARTFORD, CONNECTICUT.

## WOOD-SCREW MACHINE.

SPECIFICATION forming part of Letters Patent No. 256,546, dated April 18, 1882.

Application filed November 25, 1881. (No model.)

To all whom it may concern:

Be it known that I, ASA S. COOK, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and  
5 useful Improvements in Wood-Screw Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being  
10 had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My improvement relates to machines for  
15 threading screw-blanks, and more especially to those used for making wood-screws.

The object of my invention is to provide a ready and easily made adjustment for fixing the depth of the thread cut upon the blank in  
20 making the screw.

In the accompanying drawings, on two sheets, illustrating my invention, Figure 1 shows a top view of part of a screw-threading machine embodying my improvement. The spindle  
25 carrying the driving-pulley and jaws and other parts are removed, in order to show the parts relating to my invention better. Fig. 2 is a front view of the same parts of the machine as are represented in Fig. 1. Fig. 3 is a section taken vertically through the principal  
30 parts which show my improvement. Fig. 4 is a detail which will be hereinafter described.

A is the fixed frame of the machine.

B B are the lower halves of the bearings of  
35 the spindle which carries the jaws and drives the machine. This spindle is removed in the drawings.

C is the shaft which carries the threading-tool D.

40 E is the shaft which carries the cam E', which gives the threading-tool shaft its longitudinal movement.

F is a spring which presses the shaft C against the cam E'.

45 G is an arm firmly set on the shaft C, by which the shaft receives its rotary motion, while its longitudinal motion is given by the cam E'. This arm rests against a slide on the rocking frame J, on which it moves back and  
50 forth as the thread is cut, and which is of such

a form as to turn the arm downward to form the point of the screw. This arrangement is shown more particularly in Fig. 4.

K is the cam which throws the tool in and out as each successive cut is made in the thread  
55 of the screw. The projections K' K<sup>2</sup> K<sup>3</sup>, &c., are of increasing height, so as to throw the threading-tool a little farther in at each cut.

L is an adjustable pawl, the point of which rests on the circumference of the cam K, and  
60 passes successively over the projections K', &c. It is pivoted to the rocking frame J' at L', and at its inner end bears upon the adjusting-screw M. This adjusting-screw passes through a nut or hollow thread in the frame J, and  
65 serves to alter the position of the point of the pawl L with relation to the frame J and the slide H upon it. This adjustment constitutes the chief point of my invention.

The operation of my improvement is as follows: Whenever, in cutting a screw-thread  
70 in the machine, the tool does not cut sufficiently deep, but leaves too large a core in the middle of the finished screw, the adjusting-screw M is turned slightly down. This alters the  
75 position of the pawl L with relation to frame J, thus permitting cam K to lower the frame J and its slide or former H and press the arm G farther downward and the screw-cutting tool farther inward toward the blank upon  
80 which it is operating. If the thread is cut too deep, the adjusting-screw M is turned upward and the operation is reversed. Thus it will be seen that by means of my invention the depth of the thread can be very exactly gaged with  
85 ease and certainty.

What I claim as my invention is—

The pawl L, hinged to the rocking frame out of the axis of motion of said frame, and operated by an adjusting-screw extending upward  
90 from said pawl between its center of motion and the axis of said frame, in combination with said frame, the former H, arm G, shaft C, threading-tool D, and the cam K, substantially as described.

ASA S. COOK.

Witnesses:

THEO. G. ELLIS,  
WILMOT HORTON.