

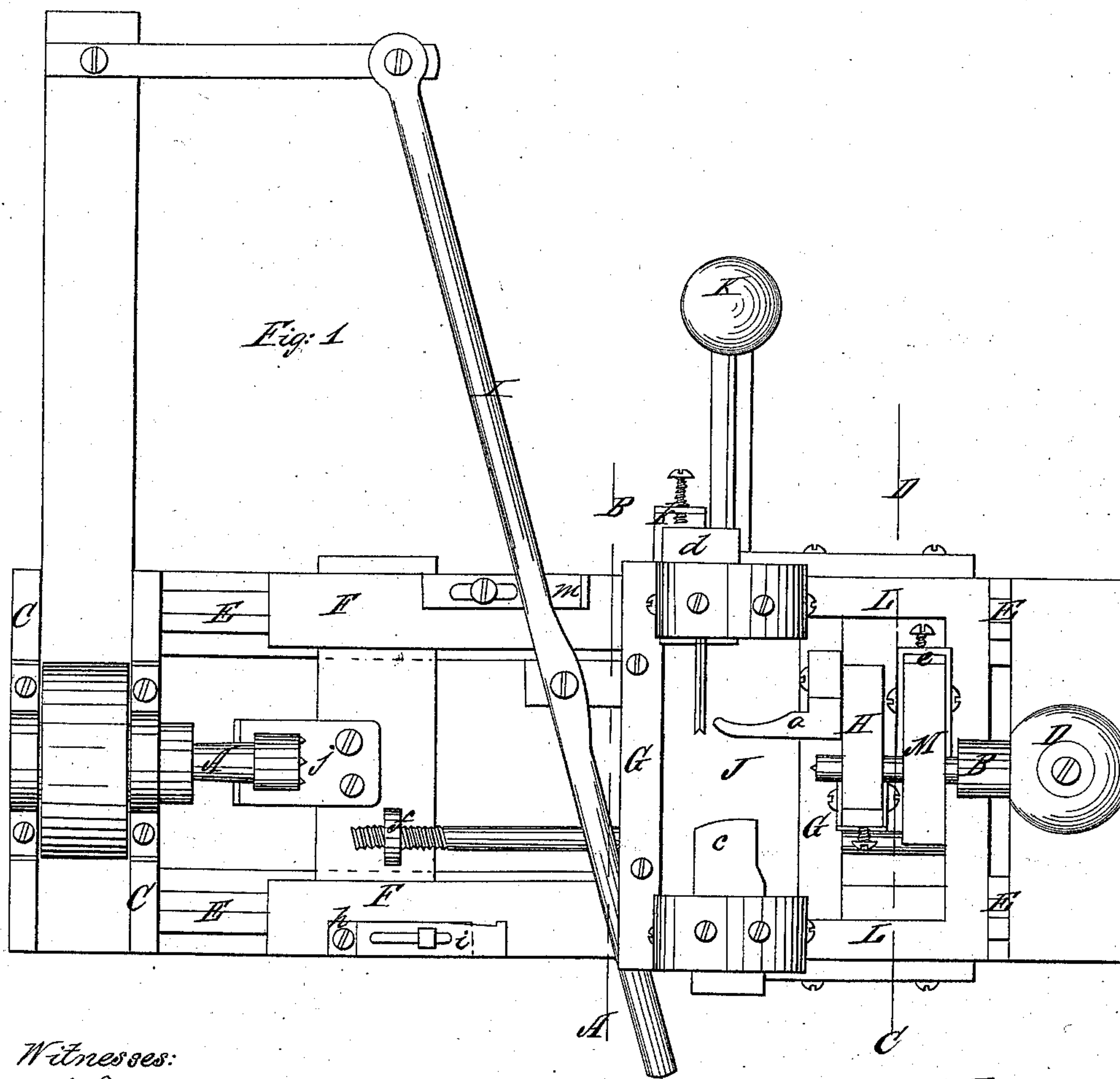
T. Gray

3 Sheets. Sheet 1.

Making Skewers.

N<sup>o</sup> 43,492.

Patented July 12, 1864.



Witnesses:  
George E. Perry  
Abie Perry

Inventor:  
Timothy Gray

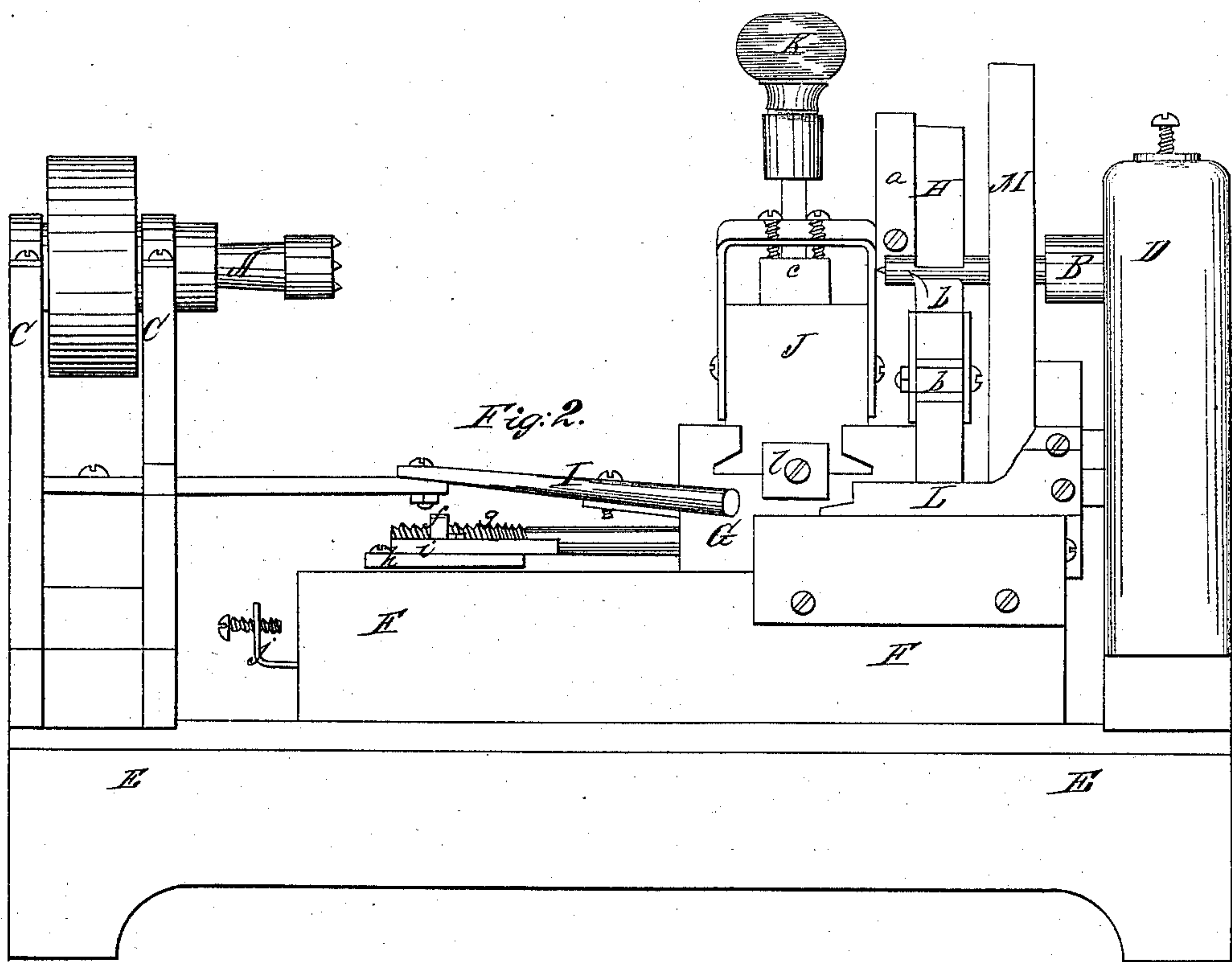
3 Sheets. Sheet 2

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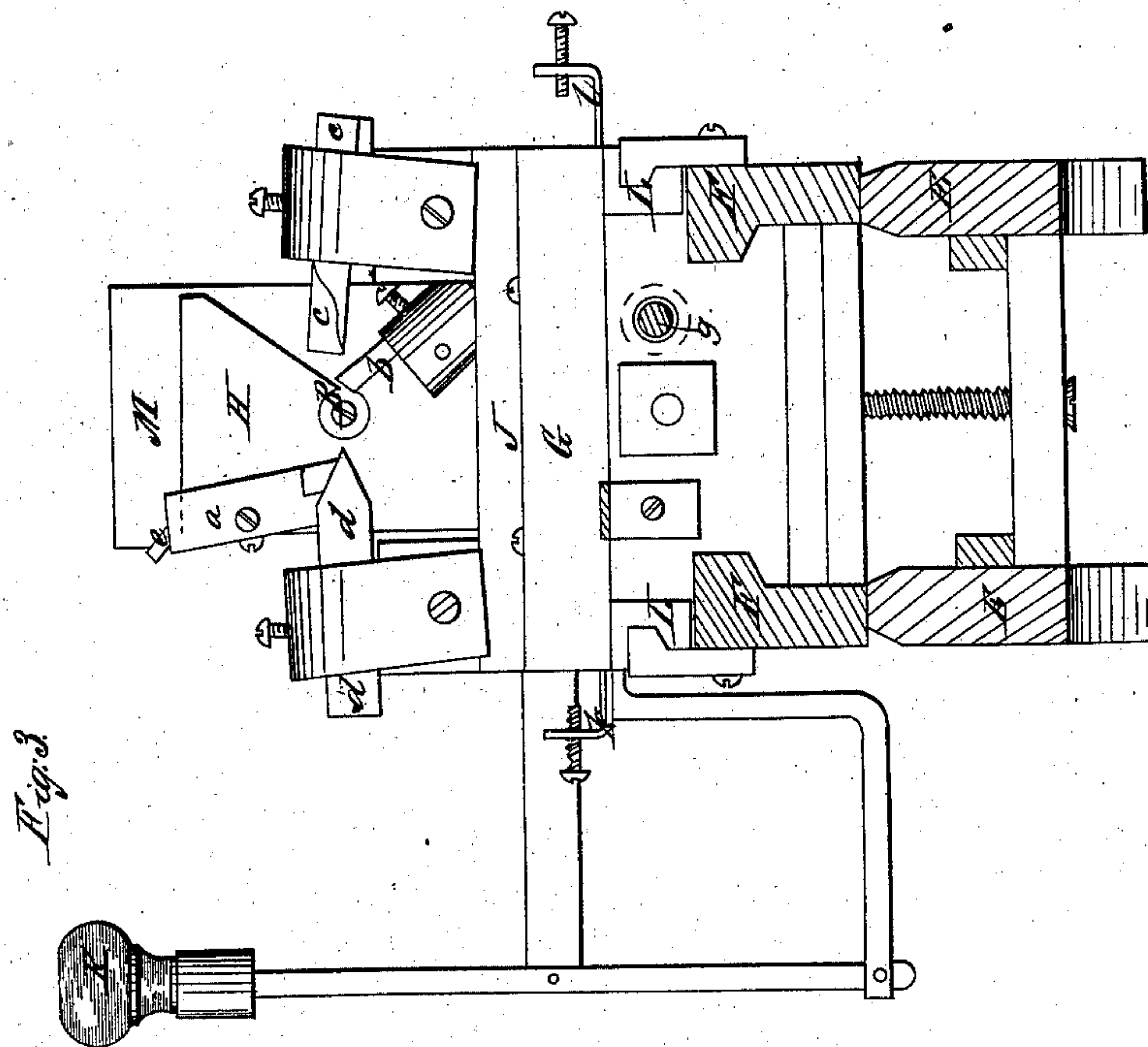
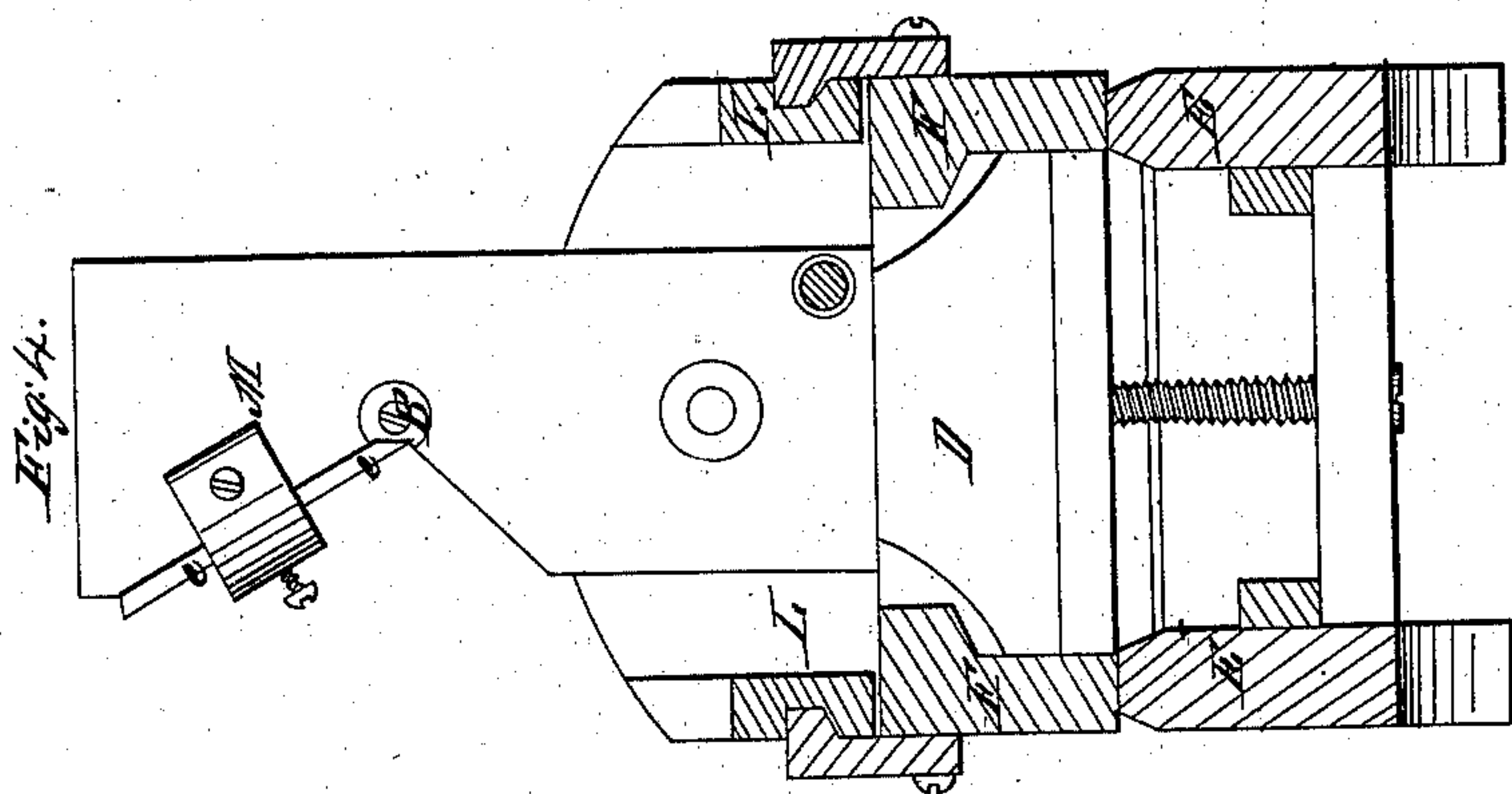
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*T. Gray,*

### *Making Skewers.*

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Inventor:  
Timothy Gray



# UNITED STATES PATENT OFFICE.

TIMOTHY GRAY, OF LOWELL, MASSACHUSETTS.

## IMPROVEMENT IN WOOD-TURNING LATHES.

Specification forming part of Letters Patent No. **43,492**, dated July 12, 1864.

*To all whom it may concern:*

Be it known that I, TIMOTHY GRAY, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Turning-Lathes for Making Skewers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the arrangement and construction of the carriages, cutters, tool-stocks, and stops to arrest the motion of devices, as herein set forth.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1 represents a plan or top view of my machine. Fig. 2 represents a side elevation of the same. Fig. 3 represents a section through A and B, showing the stop-motions *k*, *m*, and *l*, also tool-stocks H and M, with cutters attached, *c* and *d*. Fig. 4 represents a section through C and D, showing the tool-stock M attached to the carriage L.

A represents the spindle with live-center; B, the spindle with dead-center, between which the rough skewer is placed to be turned and finished. C and D are the head and tail stocks, in which revolves the live-spindle A, and supports the dead spindle and center B. E is the stationary frame, on which rest the head and tail stocks C and D. On the frame E rests also an additional or top frame, F, which is stationary. G is a movable slide or carriage, which moves parallel with the centers by the lever I, on which slide is attached tool-stock H, to which tool-stock are firmly secured cutters *a* and *b*. On the slide G also rests the slide or carriage J, which is operated at right angles with the centers by the lever K. On slide J are firmly secured cutters *c* and *d*. On frame F rests another slide or carriage, L, which moves parallel with the centers by

means of the adjustable nut *f* and screw *g*, which screw is secured to slide or carriage L. On slide or carriage L is attached tool-stock M, to which tool stock is firmly secured cutter *e*. On stationary frame F is a catch or double button, *h* and *i*, which holds in position the slide or carriage G while the slide or carriage J is operated at right angles with the centers, and also gives length to the head and final length to the skewer. The stop-motion *j* on stationary frame F gives the length to the cylinder of the skewer. The stops *k* and *l*, attached to the slide or carriage G, regulate the cutters *c* and *d* on the slide or carriage J. On the stationary frame F is an adjustable stop, *m*, which regulates and stops the slide or carriage L in its proper position, to which the tool-stock M is attached. The slides or carriages being in position near the tail-stock D, the rough skewer between the two centers A and B, the power applied to the live-spindle A, the operator by means of lever I moves the parallel slides or carriages forward to stops *j*, and *m*, which finishes the cylinder, head, and small end of skewer. The parallel carriages then being held stationary by catch or double button *h* and *i*, the operator by the lever K produces a right-angle reciprocating motion to carriage J, and forms the concave end and cuts off the finished skewer.

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

The tool-stocks H and M, with cutters attached, *a*, *b*, and *e*, in combination with the squaring-down and cutting off cutters *c* and *d* and adjustable nut *f* on the traverse screw *g* and stop *j*, or their equivalents, substantially as described, and for the purposes herein set forth.

TIMOTHY GRAY.

Witnesses:

GEORGE E. PEVEY,  
ABIEL PEVEY.