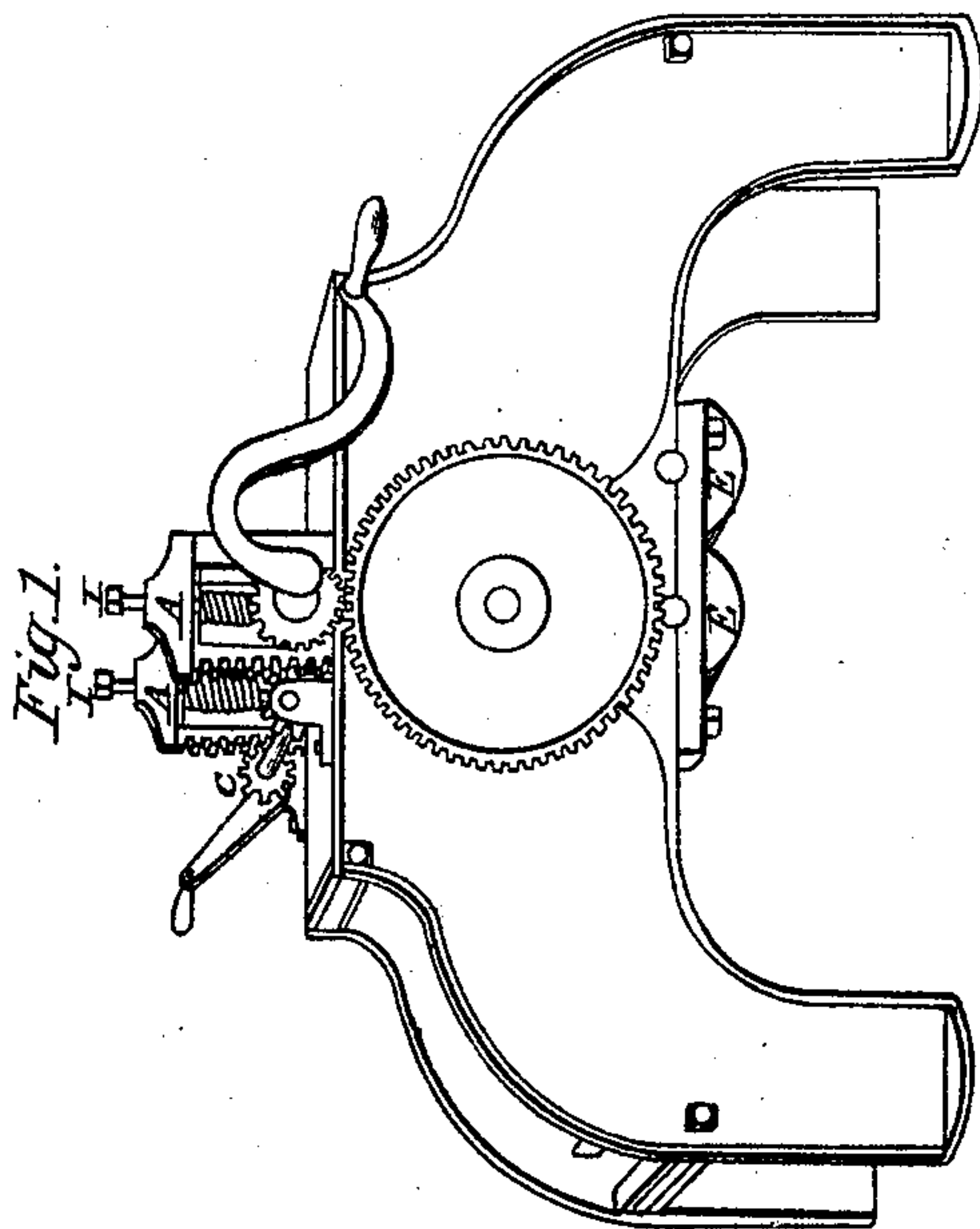
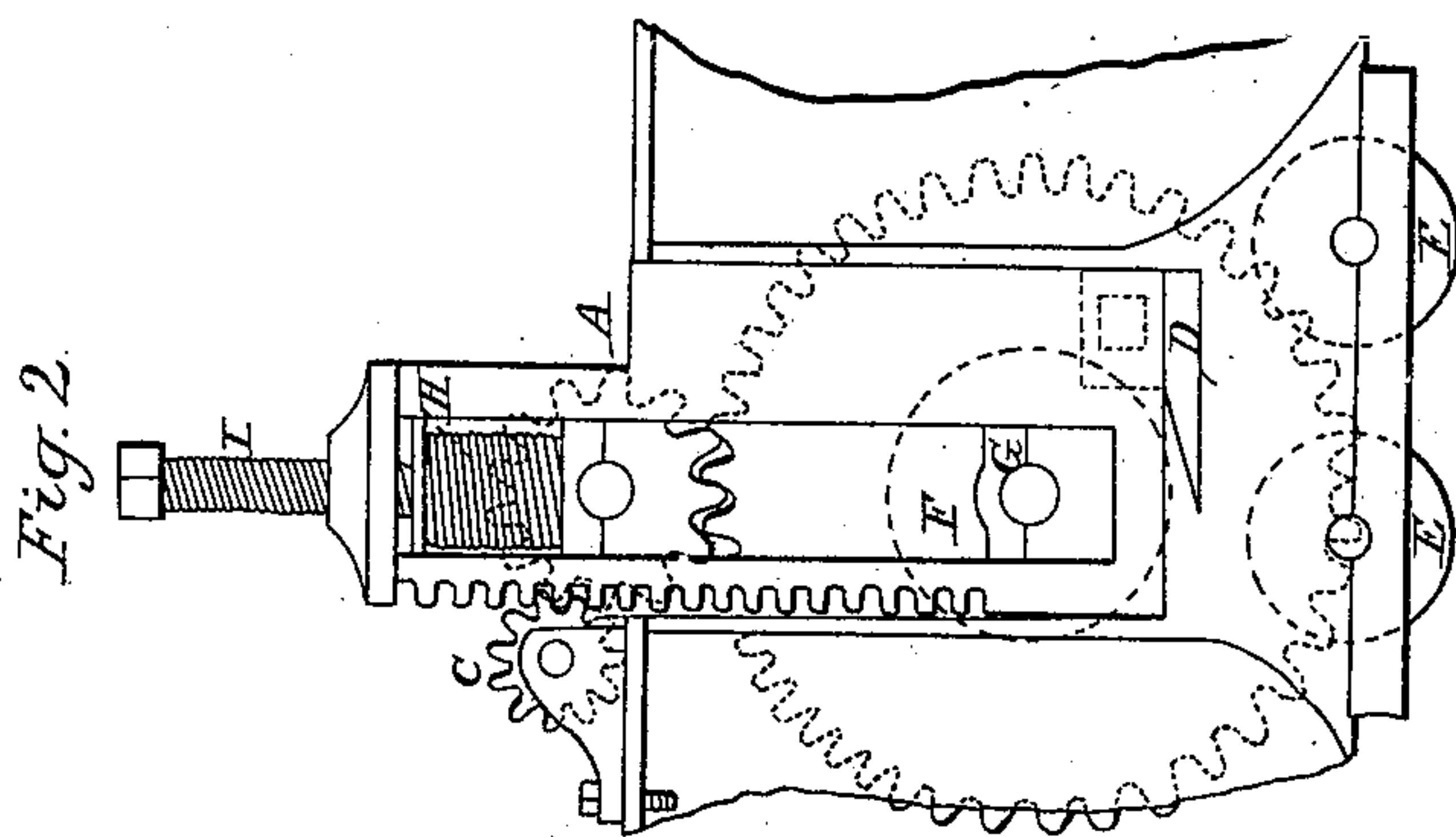


*T. P. Butterfield,*

*Wood Plane Attachment.*

*N<sup>o</sup> 24,076.*

*Patented May 17, 1859.*



Witnesses.  
*John H. Redstone*  
*A. C. Redstone*

Inventor  
*Tyrannus P. Butterfield*

# UNITED STATES PATENT OFFICE.

TYRANNUS P. BUTTERFIELD, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO ALIJAH TAYLOR,  
OF MORGAN COUNTY, AND R. STEVENSON, OF INDIANAPOLIS, INDIANA.

## HAND PLANING-MACHINE.

Specification of Letters Patent No. 24,076, dated May 17, 1859.

*To all whom it may concern:*

Be it known that I, TYRANNUS P. BUTTERFIELD, of Indianapolis, in the county of Marion and State of Indiana, have invented  
5 certain new and useful Improvements in Planing-Machines, of which the following is a full and exact description, reference being had to the accompanying drawings and the letters marked thereon.

10 Figure 1 is a perspective view showing the general arrangement of the machine. Fig. 2 is a sectional view of the same showing the manner of its operation presenting the end of the rollers and knife.

15 A is a sliding frame: to which is attached the knife D.

The pinion C raises or lowers the frame A, regulating the contact of the knife D, with the lumber to be planed as it passes through  
20 the machine over the rollers E, E, the journal of the feed roller F, works in the sliding box G. The pressure given by the feed roller upon the lumber is governed by the spring H, and screw I.

25 The following is the operation of the machine: The lumber being passed over the rollers E, E, is fed to the knife D, by the feed or friction roller F, which being set at the required thickness or so as to cut the  
30 lumber the required thickness at the same time planes the surface of the same. The knife D, is adjusted or set by operating the pinion C, and raising or lowering the frame

A. The feed or friction roller F, is allowed to accommodate itself to uneven surfaces by 35 the elasticity of the spring H. The pressure being applied to the same by the screw I. It will be seen that by this arrangement the pressure is increased when a thicker shaving is being cut; from the fact that the roller F, 40 is forced harder against the spring H, thereby causing the same to react with corresponding force. By this arrangement there is no danger of bruising the lumber deeper than the shaving cut, as the pressure re- 45 quired upon the roller F is but slight when a thin shaving is cut.

The advantages of this invention may be seen from the simplicity of its construction and its adaptation to hand work, its perfect 50 adjustability to uneven surfaces without complication and from the fact that more than six times the amount of work may be done that can be done by a common set of hand planes in the same time. 55

What I claim and desire to secure by Letters Patent is—

The combination and arrangement of the frame A, knife D, feed roller F, spring H, and screw I when the whole is arranged 60 constructed and operated in manner substantially as and for the purpose set forth.

TYRANNUS P. BUTTERFIELD.

Witnesses:

JOHN H. REDSTONE,  
A. E. REDSTONE.