

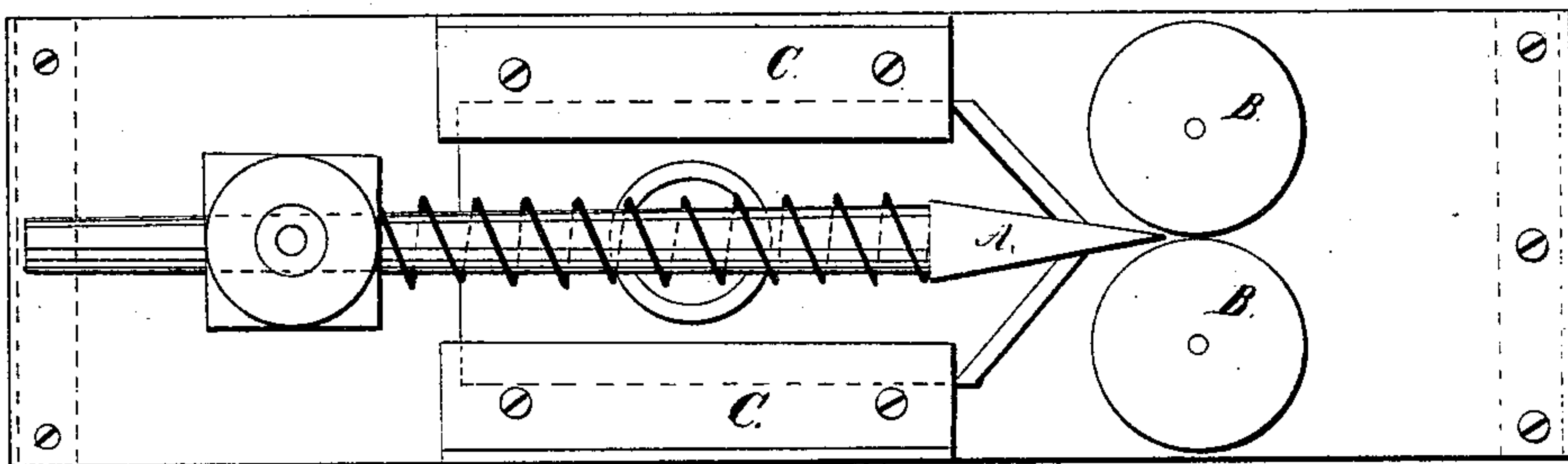
*C. Nashburn,*

*Making Hoops.*

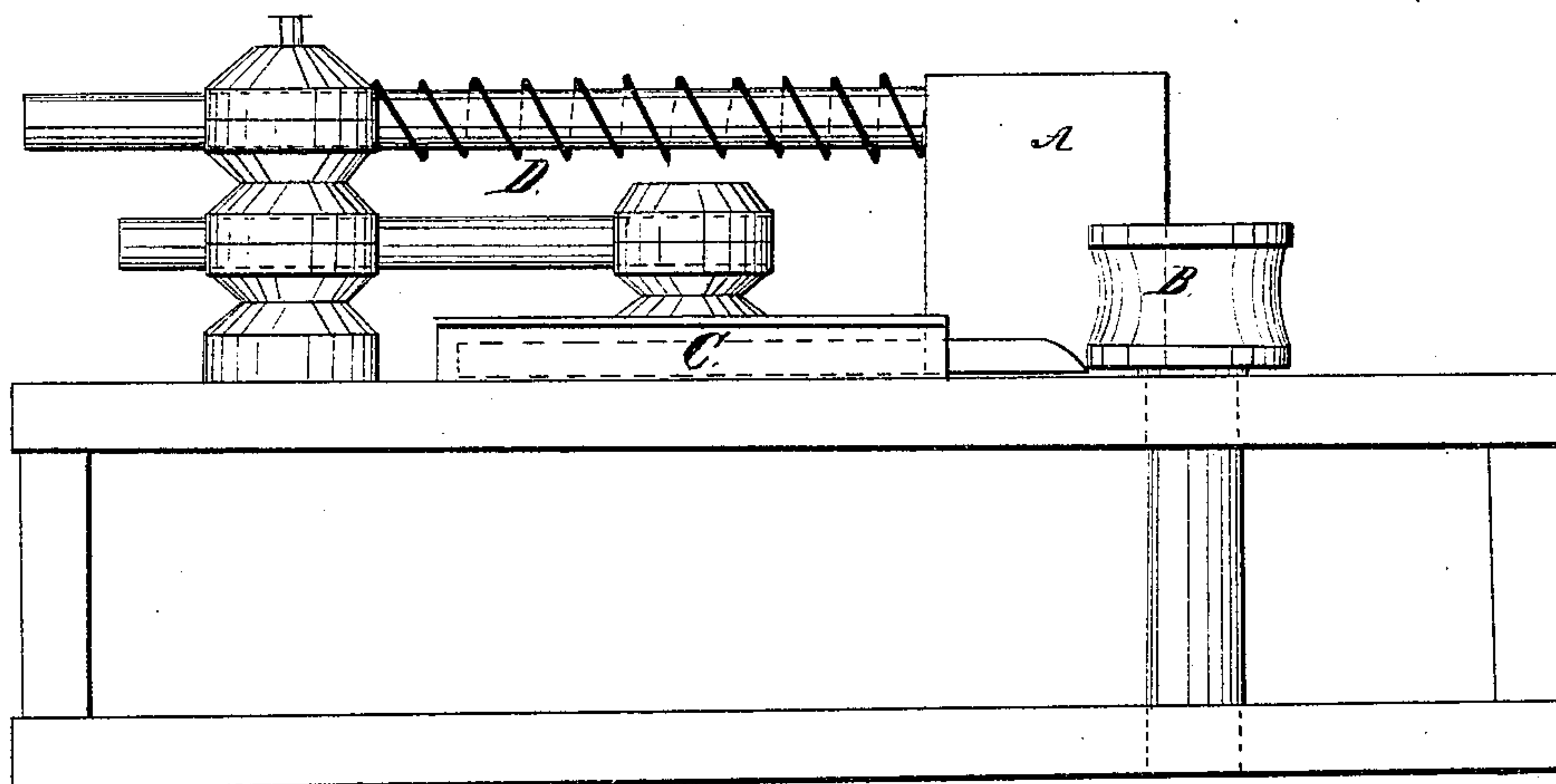
*N<sup>o</sup> 16,816.*

*Patented Mar. 10, 1857.*

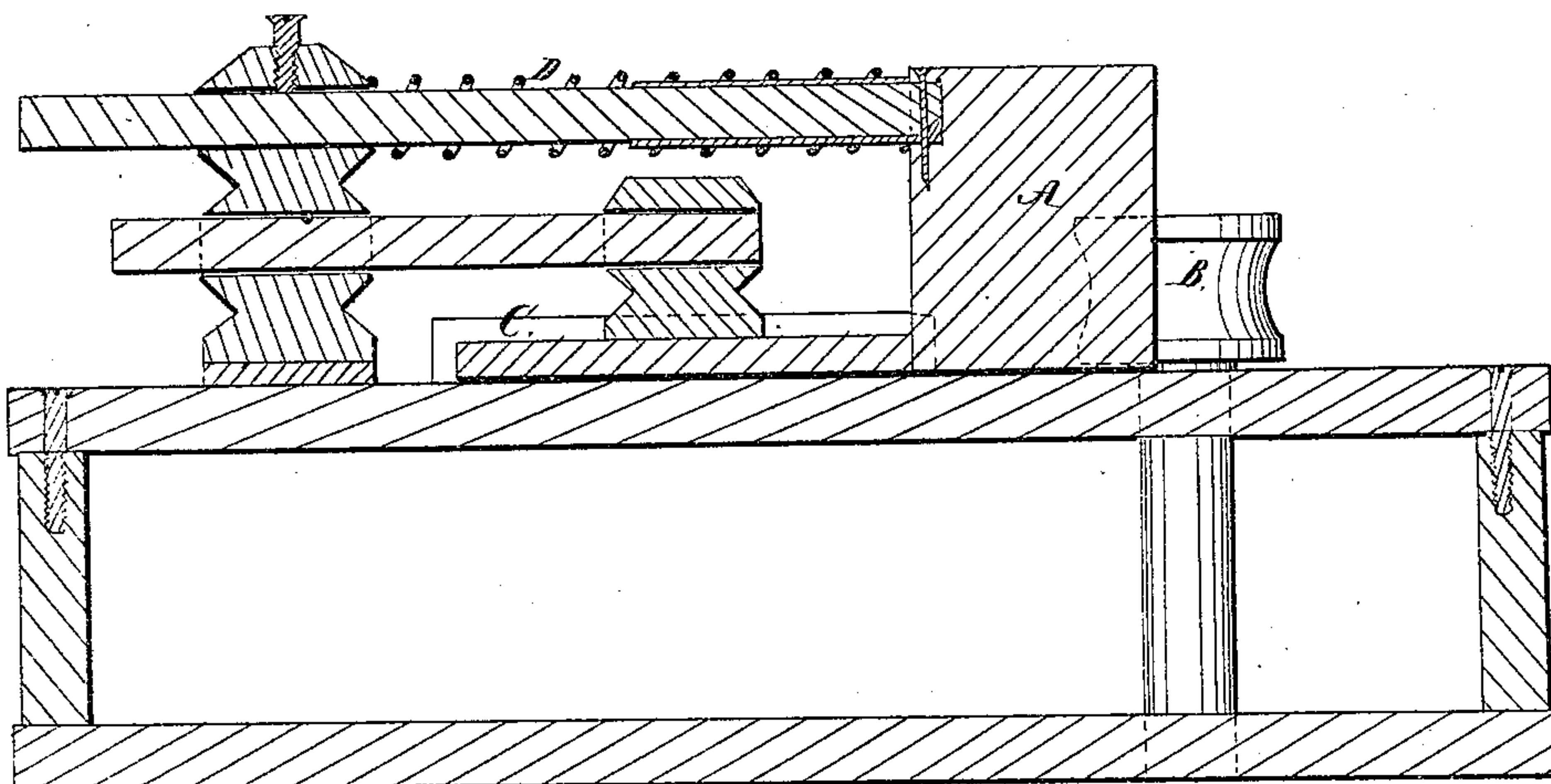
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



# UNITED STATES PATENT OFFICE.

CARVER WASHBURN, OF BRIDGEWATER, MASSACHUSETTS.

## METHOD OF OPERATING SPLITTING-KNIVES IN HOOP-POLE MACHINES.

Specification of Letters Patent No. 16,816, dated March 10, 1857.

*To all whom it may concern:*

Be it known that I, CARVER WASHBURN, of Bridgewater, in the county of Plymouth and State of Massachusetts, have invented  
5 an Improvement in Machinery for Splitting Hoop-Poles; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which—

10 Figure 1, denotes a top view of that part of a hoop pole splitting machine to which my improvement relates. Fig. 2, is a side elevation of it. Fig. 3, a vertical, central and longitudinal section of it.

15 The nature of my improvement consists in so applying the knife to the feed rollers of the machine, that the former may move away from the bite of the latter or the rollers move away from the knife, a short distance after the end of a hoop pole may have been driven against the edge of the knife by the rollers, the object of my invention being  
20 to insure the passage of the knife into the said pole.

25 In the drawings above mentioned, A, represents the knife, and, B, B, the feeding rollers. In this case, the rollers are stationary or fixed in position in the usual way, while the knife, A, is supported by a sliding carriage or so that it may slide freely between  
30 guides C, C, and toward and away from the bite of the rollers, the said knife resting against a spring, D, arranged as seen in the drawings. This spring serves to press the  
35 knife forward in the bite of the rollers, and to allow the knife to recede from the rollers under the pressure exerted against the knife by the action of the rollers against a hoop pole while being forced forward by them or  
40 between them. The said knife should move away from the rollers, and be brought to a state of rest by contraction of the spring or by contact with a stop, the distance to which the knife is thus moved being sufficient to  
45 permit the hoop to be separated from the pole as the latter is driven forward.

In hoop pole splitting machines, as usu-

ally constructed, the knife is stationary, relatively to the rollers, while the hoop pole is being forced against it, and it becomes necessary to place the knife several inches from the bite of the rollers in order that the hoop pole may be split by the knife. In consequence of this the hoop pole owing to its forward end being generally more or less inclined to the axis of the pole, is liable, on touching the edge of the knife, to be sheared off laterally in such manner as to cause it to pass by the knife without being split.

With my improvement, such an accident cannot take place, as the knife seizes the hoop pole in the bite of the rollers and under the pressure which is exerted upon the hoop pole, while the knife is being forced forward into a state of rest.

I would remark that the knife may be stationary and the feed rollers be applied to a movable carriage resting against a spring, and this so that when a hoop pole is first driven in contact with the knife, the cutting edge of the latter, may be in the bite of the rollers, a sufficient recession of such rollers subsequently taking place. I do not consider this however so advantageous as the method above described of carrying out my invention.

I would further remark, that a weight or other equivalent to the spring may be used, instead of the spring.

I claim—

The improvement of applying a knife to the feed rollers, or the latter to the former, by means substantially as described so that one may be made to approach toward and recede from the other essentially in manner and for the purpose as hereinbefore specified.

In testimony whereof, I have hereunto set my signature this fifth day of January A. D. 1857.

CARVER WASHBURN.

Witnesses:

CALER HOBART,  
ARTEMUS HALE.