

(No Model.)

O. SCHIMANSKY.  
MACHINE FOR PLANING HOOPS.

No. 390,807.

Patented Oct. 9, 1888.

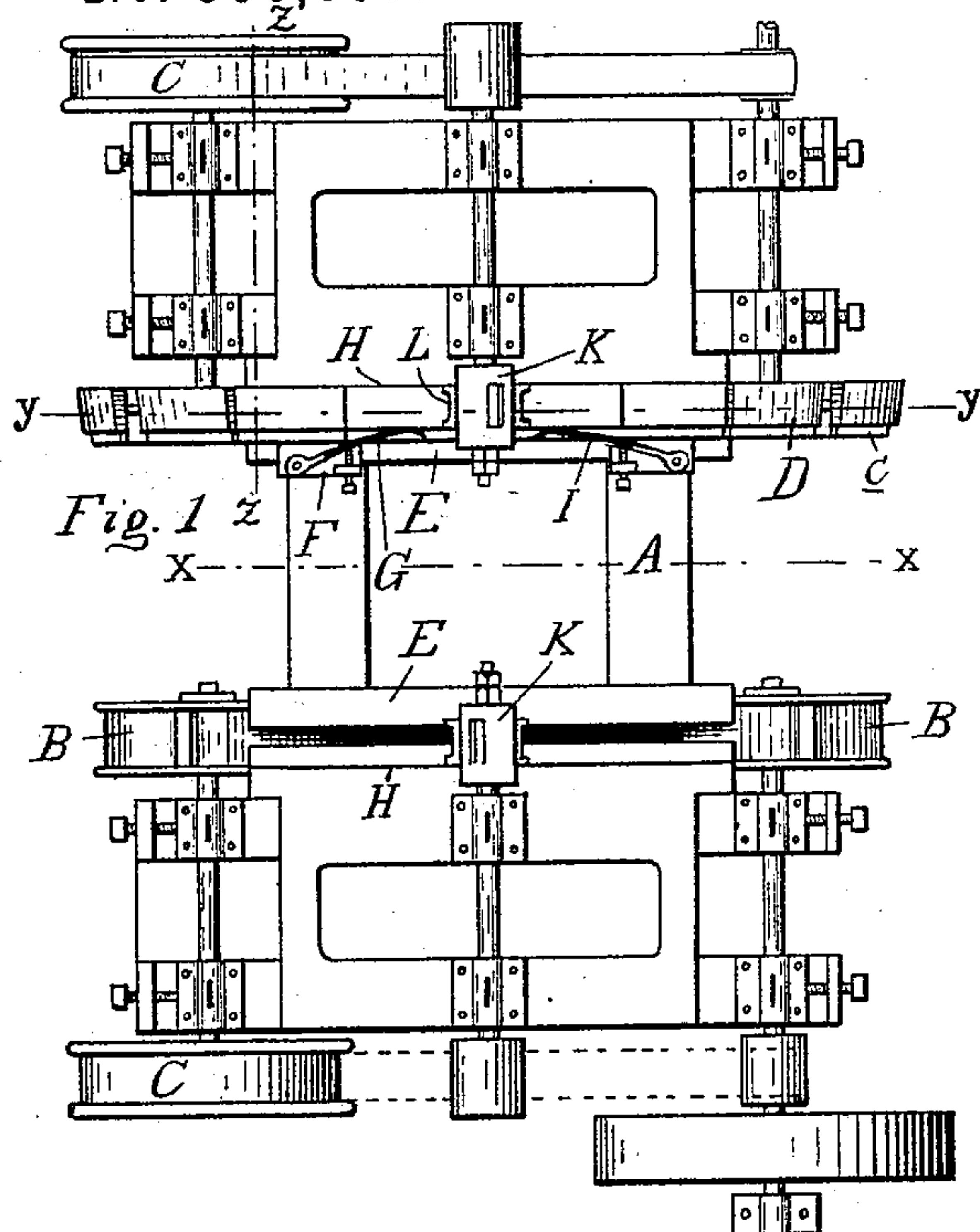
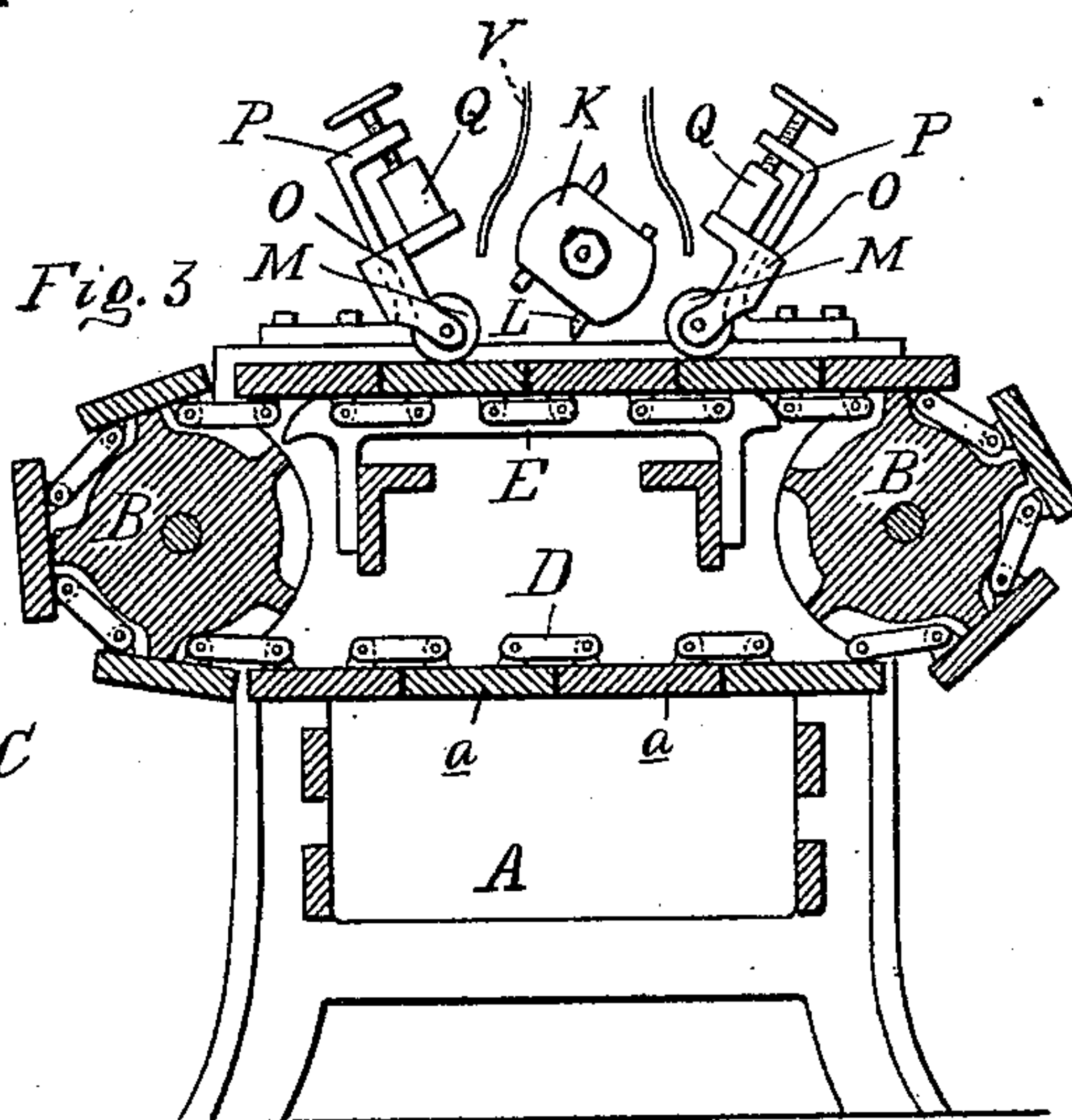
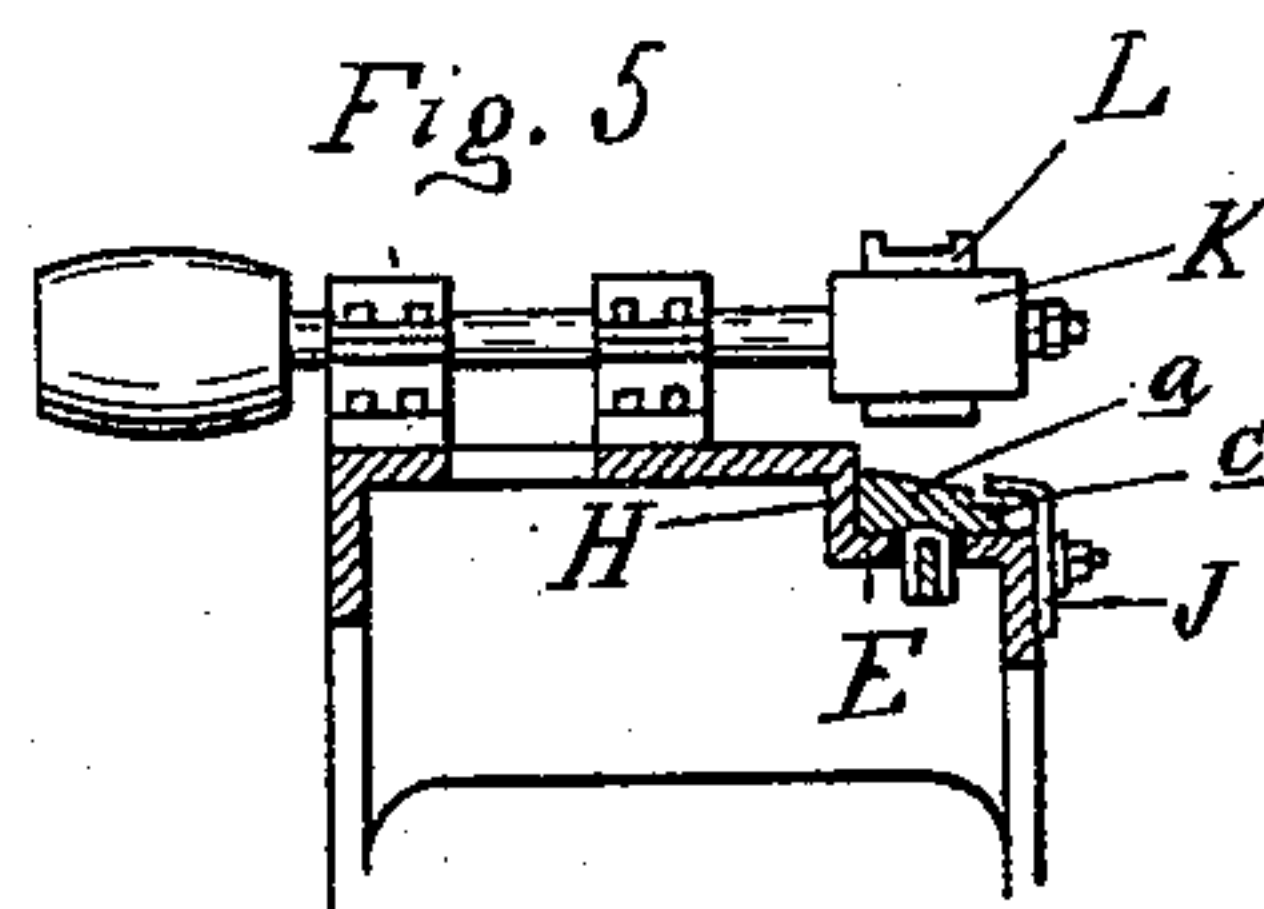
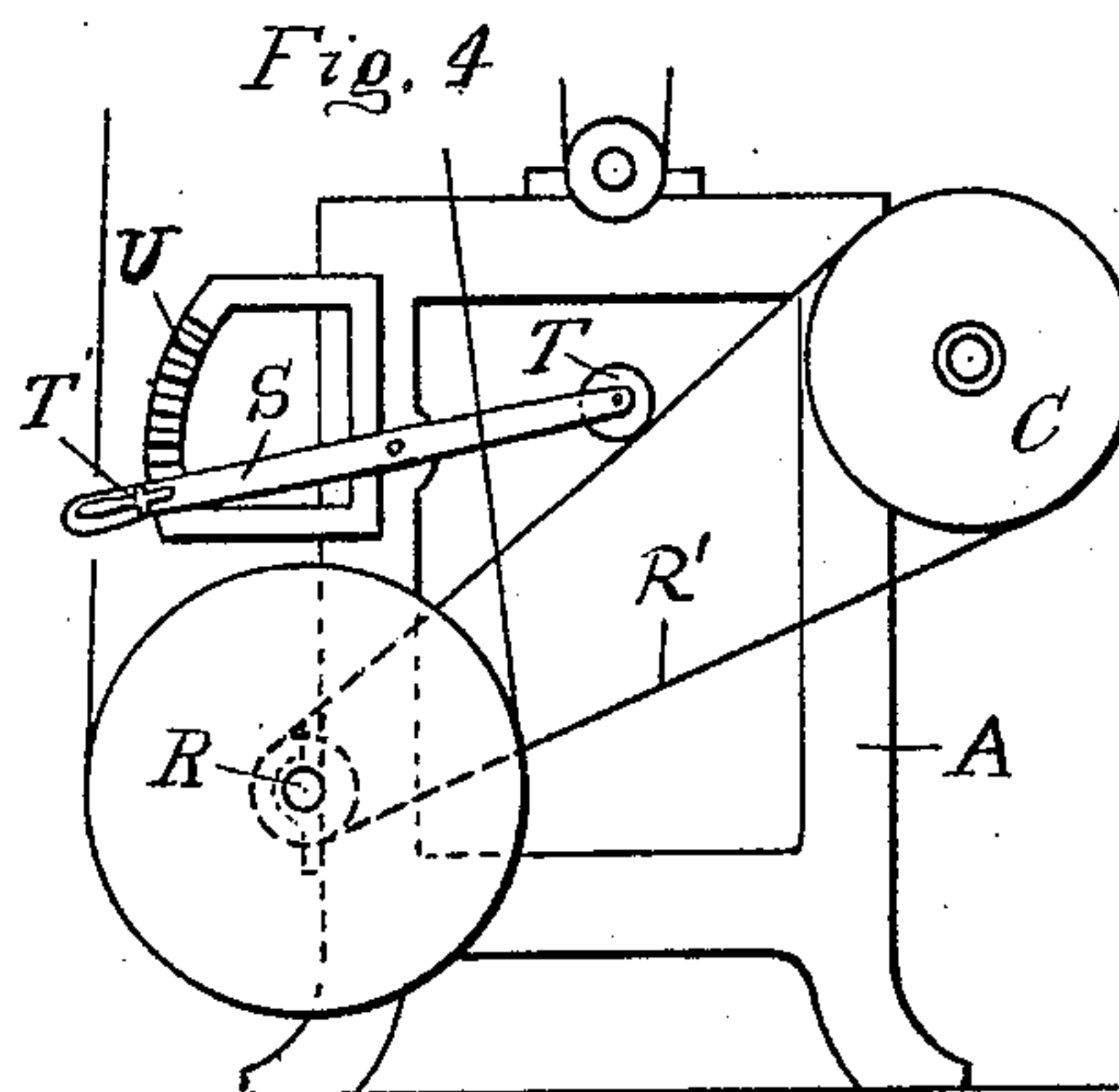
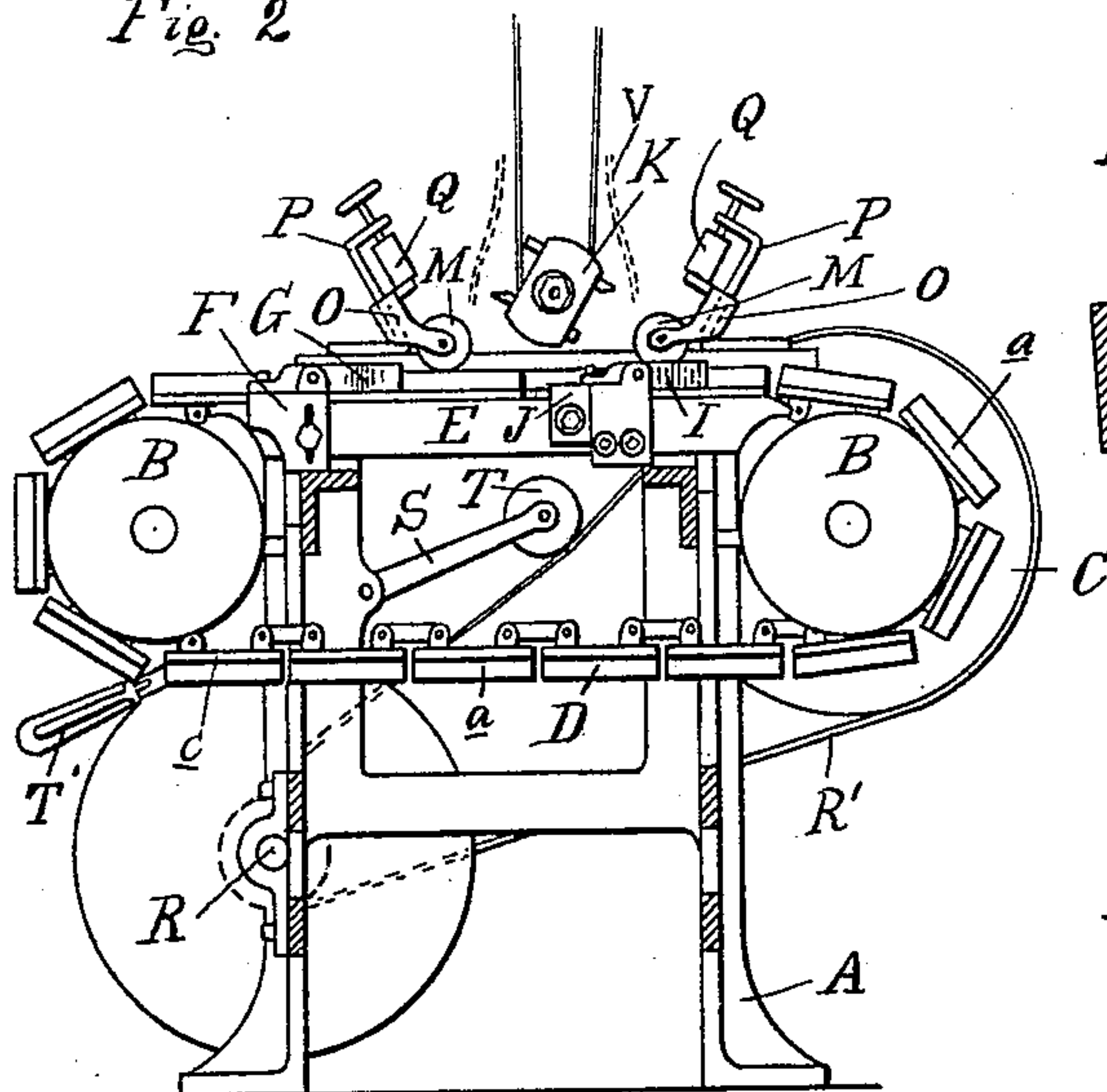


Fig. 2



Witnesses:

R. M. Hulbert.

*[Signature]*

Inventor:

Otto Schimansky.

By *[Signature]* & Co.  
Att'y.



# UNITED STATES PATENT OFFICE.

OTTO SCHIMANSKY, OF SANDUSKY, OHIO, ASSIGNOR OF ONE-HALF, BY  
MESNE ASSIGNMENTS, TO D. J. BROWN, OF SAME PLACE.

## MACHINE FOR PLANING HOOPS.

SPECIFICATION forming part of Letters Patent No. 390,807, dated October 9, 1888.

Application filed December 19, 1887. Serial No. 258,270. (No model.)

*To all whom it may concern:*

Be it known that I, OTTO SCHIMANSKY, a citizen of the United States, residing at Sandusky, in the county of Erie and State of Ohio, have invented certain new and useful Improvements in Machines for Planing Hoops, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in machines for planing hoops; and the invention consists in the peculiar construction and arrangement of the movable plate or bed; second, in the combination of the devices for feeding and guiding the hoops; third, in the peculiar construction and arrangement of the planer-knives in connection with the bed, and, fourth, in the peculiar construction and arrangement of the different parts, all as more fully hereinafter described, and specifically set forth in the claims.

In the drawings which accompany this specification, Figure 1 is a plan of my machine. Fig. 2 is a cross-section thereof on line *x x*. Fig. 3 is a cross-section on line *y y*. Fig. 4 is an end elevation thereof, and Fig. 5 is a section on line *z z* of Fig. 1.

A is the frame of the machine, which is constructed and arranged to support the operating parts thereof, which are disposed upon opposite ends, so as to form what is called a "duplex" planer.

B are chain-pulleys arranged in pairs upon opposite sides of the machine, and secured to suitable shafts which are journaled in the frame of the machine, provided with the drive-pulleys C.

D is a chain, one for each pair of pulleys, and this chain forms the movable planer-bed, and is constructed as follows:

*a* are the individual links of the chain, and these are of rectangular shape and pivotally connected together, so as to travel around the pulleys, while around the straight portion of their travel they fit closely against each other and form practically a continuous bed. In cross-section they are wedge-shaped, as shown in Fig. 5, so as to form an angular bed, and upon the outer edge they are provided with the lip *c*.

E is a stationary bed over which the chain

travels, and this bed is longitudinally slotted to permit the passage of the connections of the links, so that the links themselves may be firmly supported by the bed. To the side of this bed is adjustably secured the plate F, which carries upon its upper face the guide-spring G, adapted to guide the outer ends of the hoops in their passage over the bed. While the inner edge of the hoops is guided by the stationary guide H on the bed, another similar spring-guide, I, is secured to the inner end of the bed, and the chain-guide J is secured intermediately between and engages with the lip *c* of the links of the chain.

The chain-guide J is placed underneath the cutter for the purpose of counteracting any lateral displacement of the chain which may occur at this point through any irregular action of the cutters and to be out of the way. The lips are formed to allow the chain-guide not to project above the chain.

Centrally above the bed is secured on a suitable shaft the cutter-head K, which carries the planer-knives L, which are adapted to plane the face of the hoop, and upon the opposite sides of this planer-head are secured the compressor-rolls M, which are journaled in the frames O, which are sleeved on the outwardly-inclined guides P and have a vertical motion thereon, regulated by the pressure of the springs Q.

R is a counter-shaft, from which motion is conveyed to the drive-pulley C of the feed, and in connection with the belt R', conveying such motion, I construct a belt-tightener, which consists of the lever S, pivotally secured to the side of the frame in proximity to the operator, and which carries at the inner end the tightener-pulley T and at its opposite end the hand locking-latch T', adapted to engage with the rack U, all so arranged that the operator by means of a movement of the lever may loosen or tighten his belt by depressing or raising the handle.

In practice one attendant stands at the front end of the machine and feeds the hoops alternately to each cutter, and it will be seen that if the hoop is laid with its thicker end toward the edge of the bed it will, on account of the angular shape of the links, present a horizontal face to the cutter-head. Its displacement



is prevented by the guides G and I, so that the chain will carry the hoop in a straight line underneath the cutter. By this construction it will be seen that the knife is not required to have an angular or oblique cutter-face, but cuts on a perfect horizontal plane, and this facilitates greatly the adjusting and grinding of the knives, while at the same time the hoops have less tendency to be displaced by the planing action, as would be otherwise the case. As the links form a continuous bed and are firmly supported on the stationary bed, they form at all times a firm level bearing for the hoops, so that they are planed true throughout their entire length in their passage through the machine. By inclining the guides of the pressure-rollers I am enabled to set the rollers close to the knives, and at the same time have facility for adjusting a hood, V, over the planer-knife to carry off the shavings by the usual exhaust-fans.

What I claim as my invention is—

1. In a machine for planing hoops, the combination, with a revolving cutter head, of a planer-bed consisting of an endless chain constructed of rectangular blocks wedge-shaped in cross-section, and forming a continuous traveling bed and connected by links, as shown,

and of a slotted stationary bed underneath supporting it, substantially as and for the purpose described.

2. In a machine for planing hoops, the combination, with a revolving cutter-head, of an endless feed-chain, D, consisting of the rectangular blocks *a*, wedge-shaped in cross-section and provided with the lip *c*, the slotted bed E, the guide-springs G and I, the chain-guide J underneath the cutter above said lip, and the pressure-rollers M, all arranged substantially as described.

3. In a machine for planing hoops, the combination, with a stationary slotted bed, E, of the endless feed-chain D, forming a continuous traveling bed, and consisting of the links *a*, wedge-shaped in cross-section, the cutter-head, the pressure-rolls M, secured in the frame O, and the guides P, inclined outwardly from the cutter-head, substantially as and for the purpose described.

In testimony whereof I affix my signature, in presence of two witnesses, this 13th day of October, 1887.

OTTO SCHIMANSKY.

Witnesses:

J. PAUL MAYER,  
H. S. SPRAGUE.