

(No Model.)

L. H. HICKS.  
SKID BLOCK.

No. 561,396.

Patented June 2, 1896.

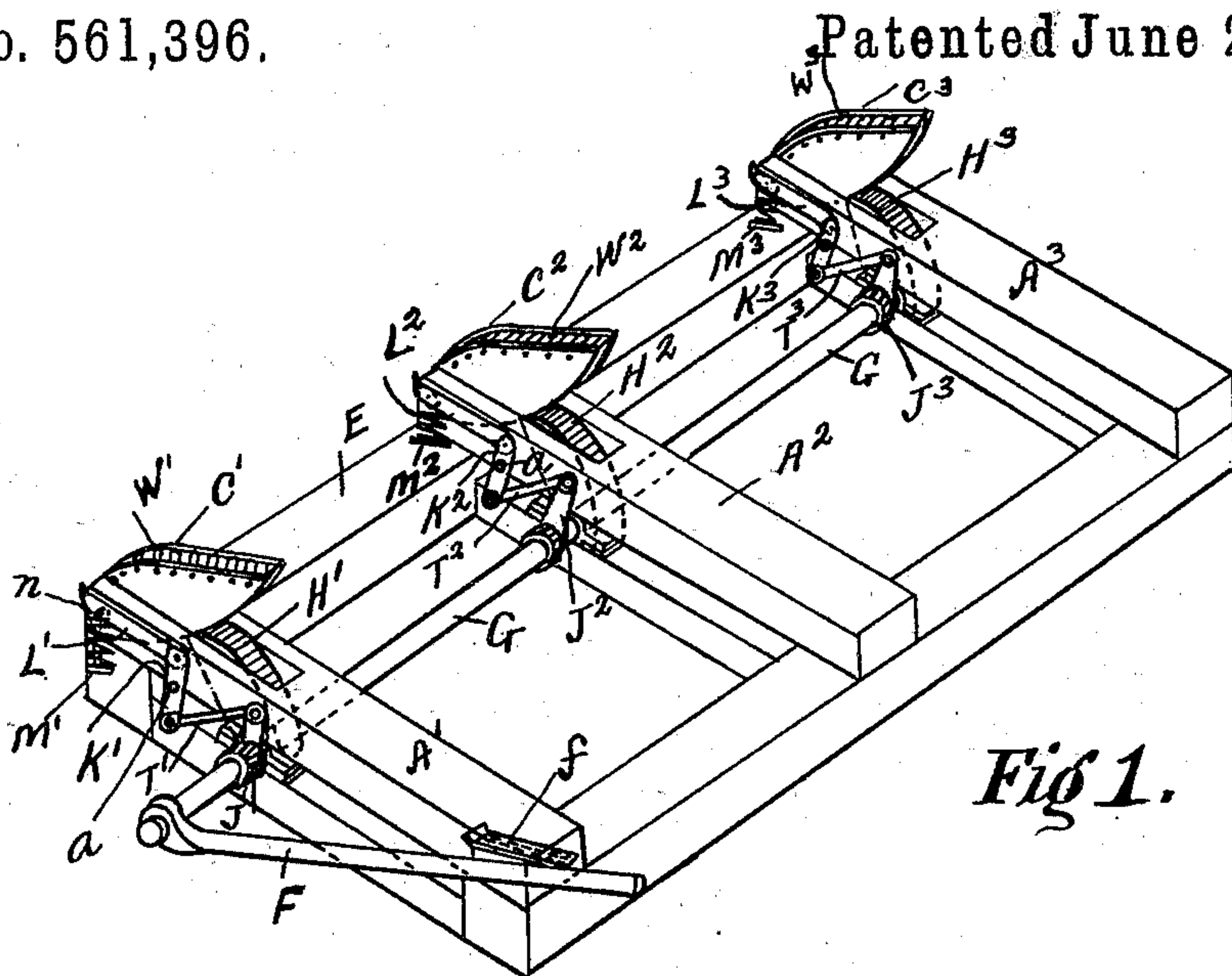


Fig 1.

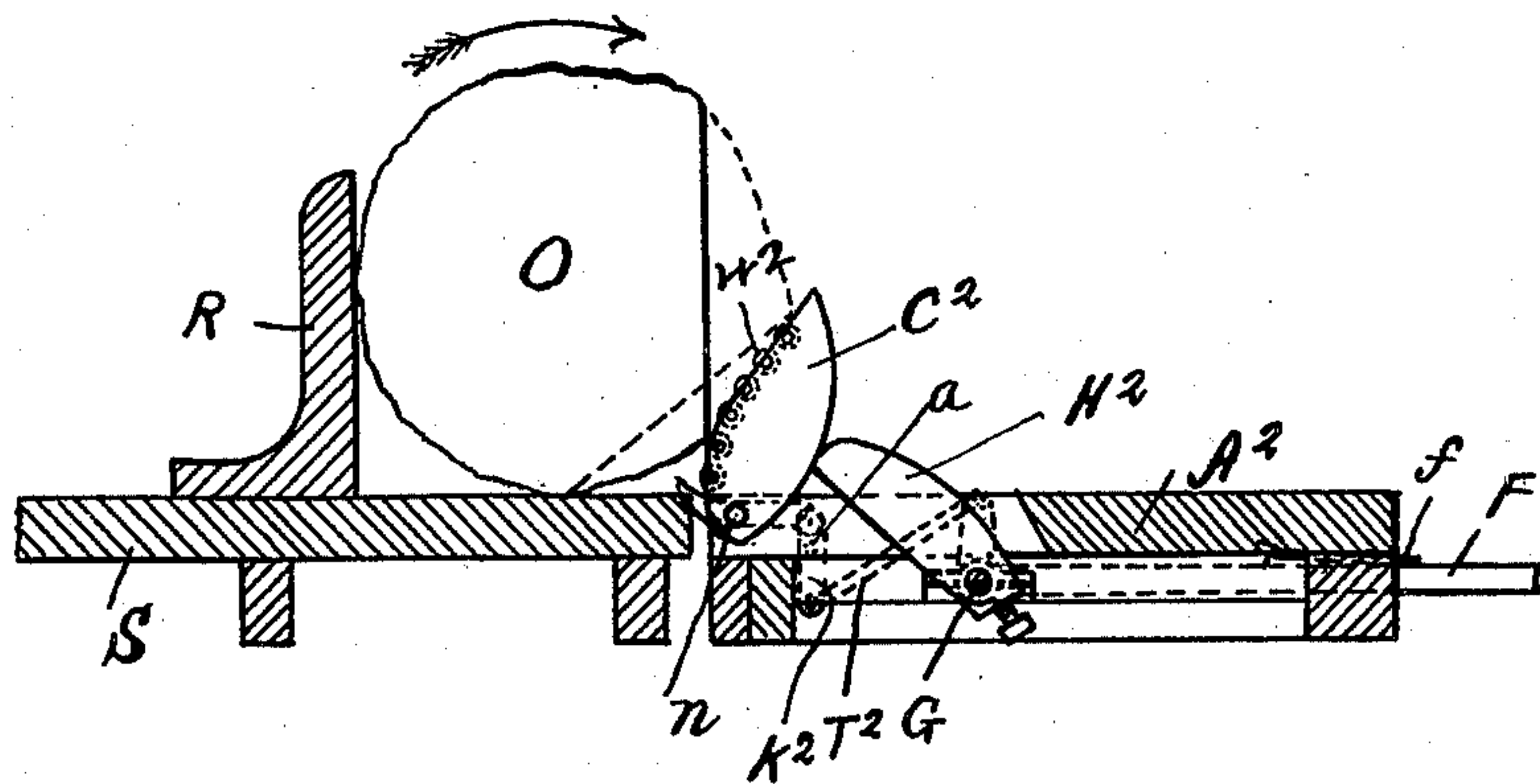
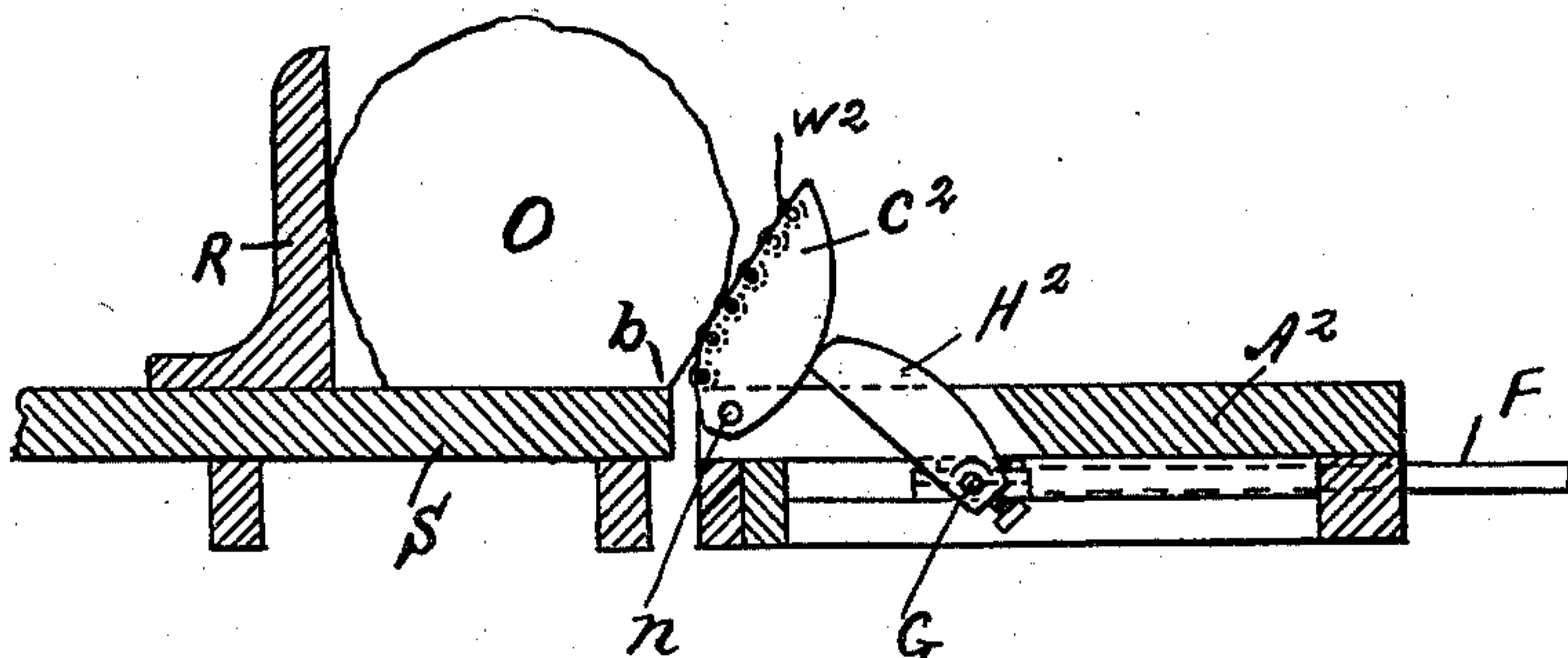


Fig 2.



WITNESSES.

Edwin Eaton.

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Fig 3.

INVENTOR

Louis H. Hicks.

By Thurman & Silvers

ATTORNEYS.



# UNITED STATES PATENT OFFICE.

LOUIS H. HICKS, OF LYONS, INDIANA.

## SKID-BLOCK.

SPECIFICATION forming part of Letters Patent No. 561,396, dated June 2, 1896.

Application filed January 25, 1896. Serial No. 576,803. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS H. HICKS, a citizen of the United States, residing at Lyons, in the county of Greene and State of Indiana, have invented certain new and useful Improvements in Skid-Blocks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to certain simple and easily-constructed devices by which logs are turned and controlled on a sawmill-carriage with the least amount of labor and exertion on the part of the operators; and it consists of a series of skid-blocks attached to the ends of skids and a novel arrangement of levers by which they are operated in connection with a series of cant-irons, all of which will be more fully described hereinafter.

My object is to provide a means of the above description that is simple, cheaply constructed, efficient, economical, and durable in use; and with this in view I have constructed and arranged the several parts of my invention as shown in the drawings accompanying.

When a log is first placed upon the log-carriage of a sawmill, it requires to be squared before being sawed into boards or other lumber, and in this process of squaring, after the first cut is made and a slab taken off, the log has to be successively turned at a great disadvantage of time and labor to permit the three other rough slabs to be sawed off in reducing the log to a square form. By my invention I render this operation of turning the log axially more convenient, expeditious, and economical, as by my arrangement the skid-blocks are simultaneously raised to receive the log as it is turned, the cant-irons engage the bottom of log and force it away from the blocks at bottom and prevent the overhanging part from catching on the edge of head-block, while the skid-blocks temporarily sustain the log while it slides with an axial turn

to its new position, which is automatically, from its own gravity, being augmented by reason of the series of rollers set partly into the face of the skid-blocks.

Referring to the drawings, Figure 1 is a perspective view of the skids, showing my skid-blocks applied thereto. Fig. 2 is a cross-section of the same shown in its relation to a sawmill-carriage, showing a log having the slab removed from one side, and the dotted lines showing the log being turned; and Fig. 3 is a similar view showing the log just after it has been turned.

To more fully understand the mode of construction and operation, I refer to the details, in which  $A^1 A^2 A^3$  represent the skids, which receive the log as it is rolled from the yard and from which it is transferred to the sawmill-carriage having the head-block S and knees R. Under the skids upon a solid foundation are arranged timbers, upon which is journaled in bearings a longitudinal shaft G, having a combination hand-lever and treadle-arm F. These skids are mortised or recessed at their ends next to the carriage, and in these recesses are hinged or pivoted upon bolts  $n$  the skid-blocks  $C^1 C^2 C^3$ , one in each skid. These skid-blocks are in the nature of metal supporting-arms, whose faces next to the carriage are inclined and slightly rounded at the bottom, and constitute so many supports against which the log leans as it turns to its new position. In a suitable groove in the face of each of these skid-blocks are arranged a series of transverse metallic rollers  $W^1 W^2 W^3$ , held in revoluble position by journals. These rollers are for the purpose of causing the log to descend more readily while being turned. Each one of these skid-blocks is raised by lift arms or cams  $H^1 H^2 H^3$ , rigidly fixed to the shaft G. To the shaft G are attached rock-arms  $J^1 J^2 J^3$ , having pivotally connected at their extremities the connecting pull-rods  $T^1 T^2 T^3$ , which have their opposite ends pivotally attached to the lower ends of the upright rocking-arms  $K^1 K^2 K^3$ , having their support and axis near their centers at  $a$ . The upper ends of these upright arms are pivotally connected to approximately horizontal



slidable cant irons or bars  $L'$   $L^2$   $L^3$ , having points at their opposite ends which engage with the log. These cant-irons are supported near their outer ends by suitable springs  $M'$   $M^2$   $M^3$ , resting upon the frame-timbers.

In making use of my skid-blocks the log on the sawmill-carriage having had its first slab taken off by the first cut of the saw, as shown in Fig. 2, requires to be turned. To do this, the operator either puts his foot upon the treadle-plate  $f$  of the lever  $F$  or operates it by hand, thus depressing it, which turns the shaft  $G$  axially, carrying the fixed cam-arms  $H'$   $H^2$   $H^3$ , raising the skid-blocks to the position shown in Figs. 2 and 3. The log  $O$  is now turned by a handspike or cant-hook in the direction of the arrow in Fig. 2, and as soon as it is overbalanced its flat side falls against the skid-blocks  $C'$   $C^2$   $C^3$ , against which it finds a temporary support, while its lower edge slides back on the head-blocks toward the knees  $R$ , and finally falls of its own gravity to a position of rest, with its flat side down against the head-blocks, as in Fig. 3. The lever  $F$  is then raised, lowering the skid-blocks, and the knees  $R$ , being advanced, force the log forward until the point  $b$  extends far enough over the head-block to be in line with the saw. The second slab is then removed by the saw, leaving a portion  $b$  of the log overhanging the head-block. When again turning the log for completing the squaring operation, this edge interferes with the log freely sliding back toward the knees. When now the knees are withdrawn, the lever  $F$  is pressed downward and the skid-blocks raised. The same motion advances the slidable cant-irons  $L'$   $L^2$   $L^3$  against the log, pushing it back until the overhanging edge is clear on the head-block, as shown in Fig. 3, when it is ready to be again turned, and the operation is effected quickly, causing a great saving of the time and labor ordinarily expended without this device. After the log has been turned each

time, the lever  $F$  is raised and the skid-blocks then drop down into their respective recesses.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described apparatus comprising in combination the skid-blocks pivoted to the skids and carrying the rollers journaled in a groove in the upper face thereof; the cam-arms arranged on the rotating shaft to lift said blocks; the cant-irons arranged to be automatically operated by said rotating shaft simultaneously with said blocks, said shaft being mounted at the lower portion of the skids to the ends of which said blocks are pivoted, passing transversely across them, and provided at one end with a lever having secured thereto a treadle-plate; the means, consisting of the rocking-arms and rods for connecting said cant-irons operatively to said shaft, all arranged and operating substantially as shown, and for the purposes set forth.

2. The combination, with the skid-blocks operated by lifting-arms rigidly secured to the rotating shaft, of the cant-irons, each pivotally supported at its rear end to the upper end of the rocking-arm supported pivotally at or near its center, the forward end of said cant-iron being slidably supported upon a spring, said cant-irons being automatically operated simultaneously with said blocks by means of said shaft having a rocking-arm to which is connected a pull-rod connecting with the lower end of said centrally-supported rocking-arm, substantially as shown and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

LOUIS H. HICKS.

Witnesses:

C. T. O'HAYER,  
F. W. BENJAMIN.