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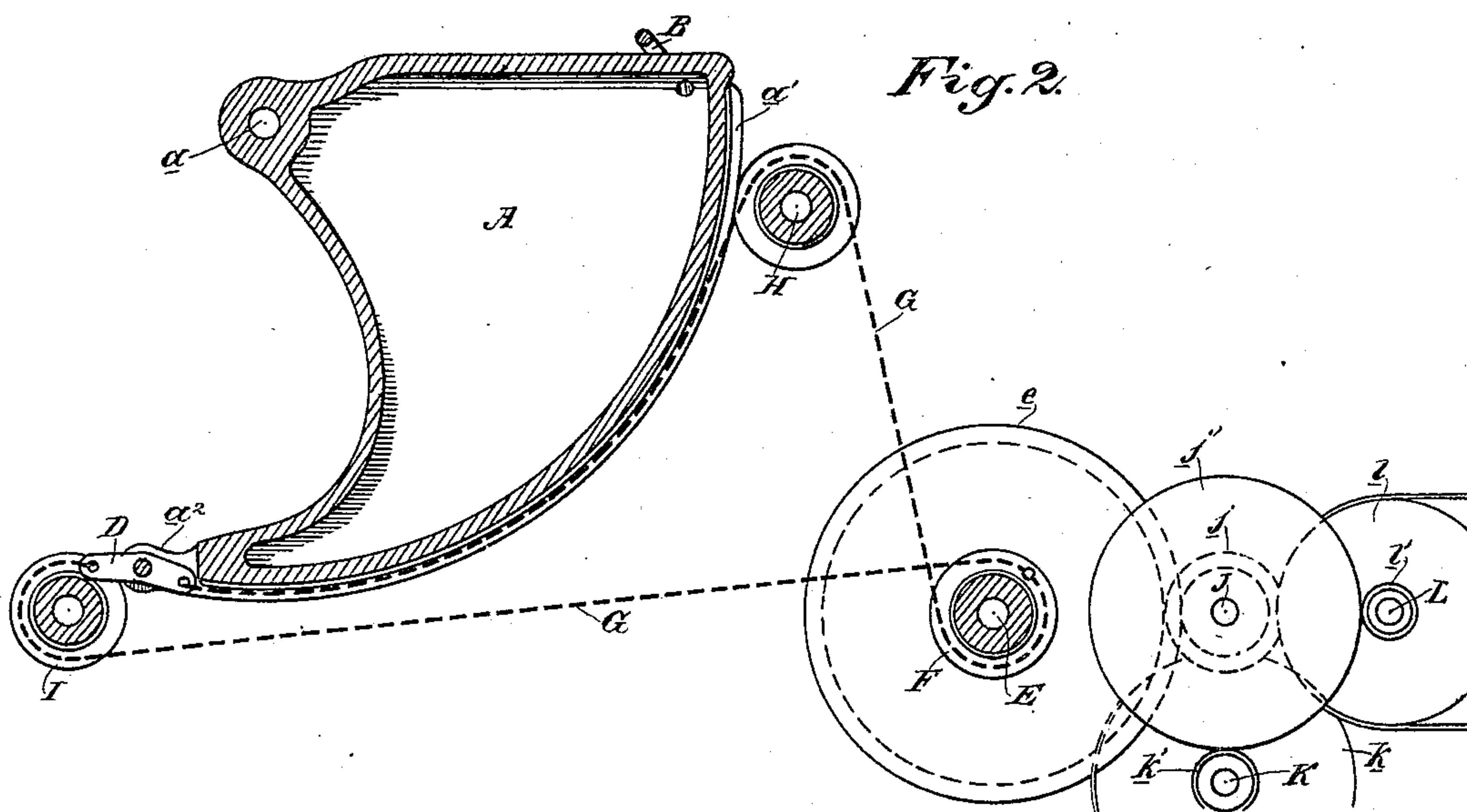
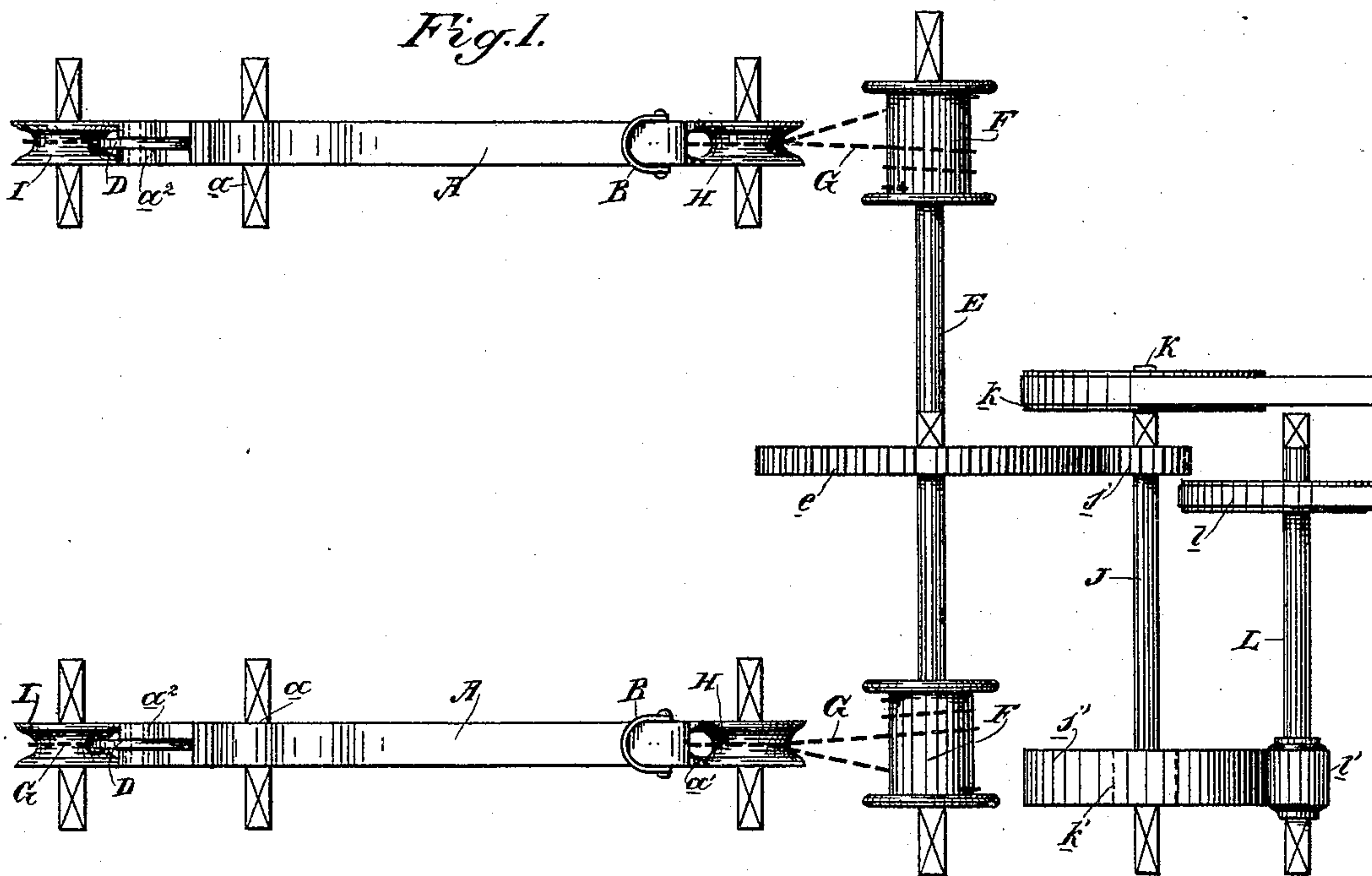
2 Sheets—Sheet 1.

D. EVANS, E. H. PERCY & B. PERRY.

SKID FOR LOADING AND HANDLING LOGS.

No. 475,011.

Patented May 17, 1892.



Witnesses,
G. H. Nurse
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Inventors,
David Evans
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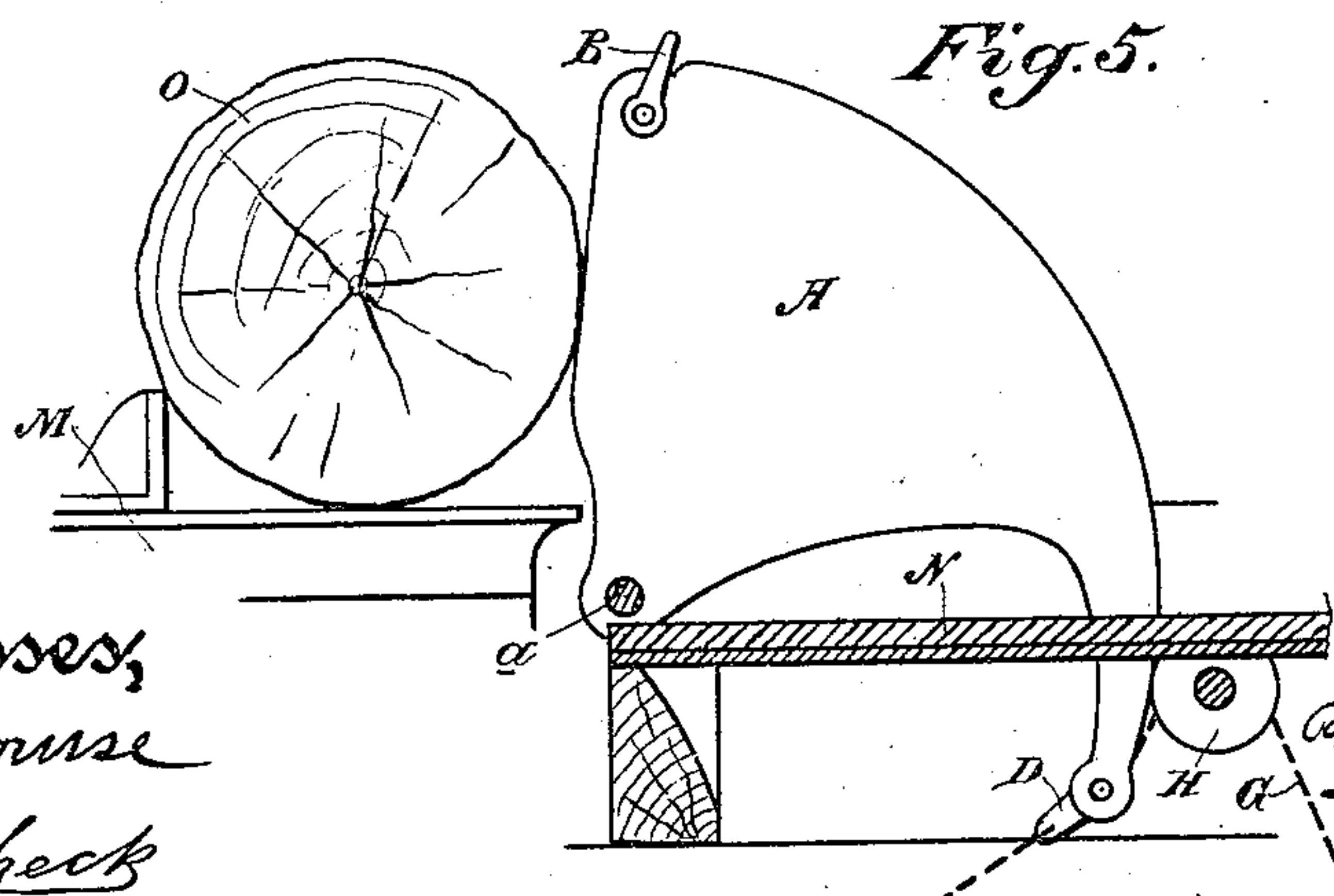
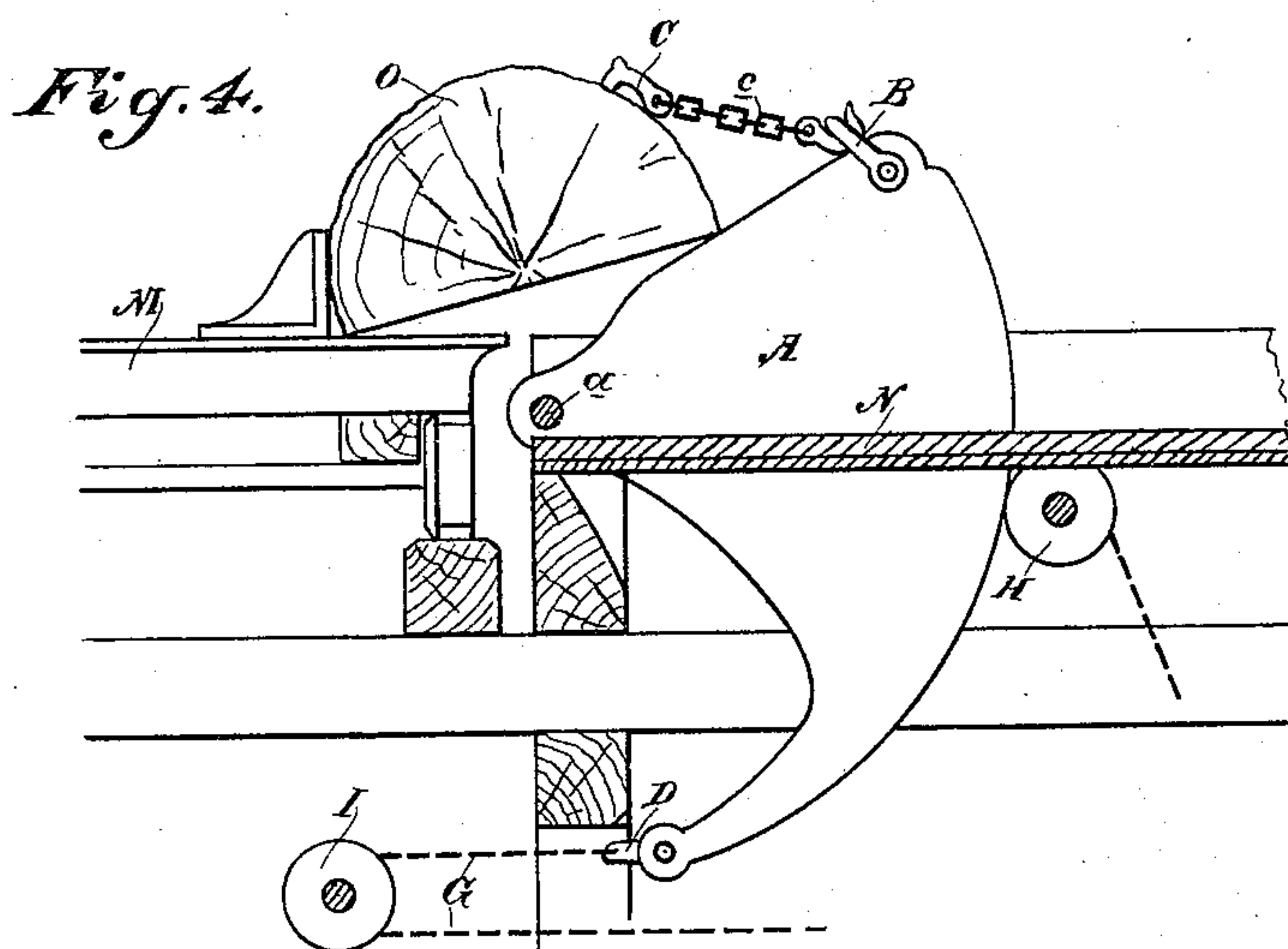
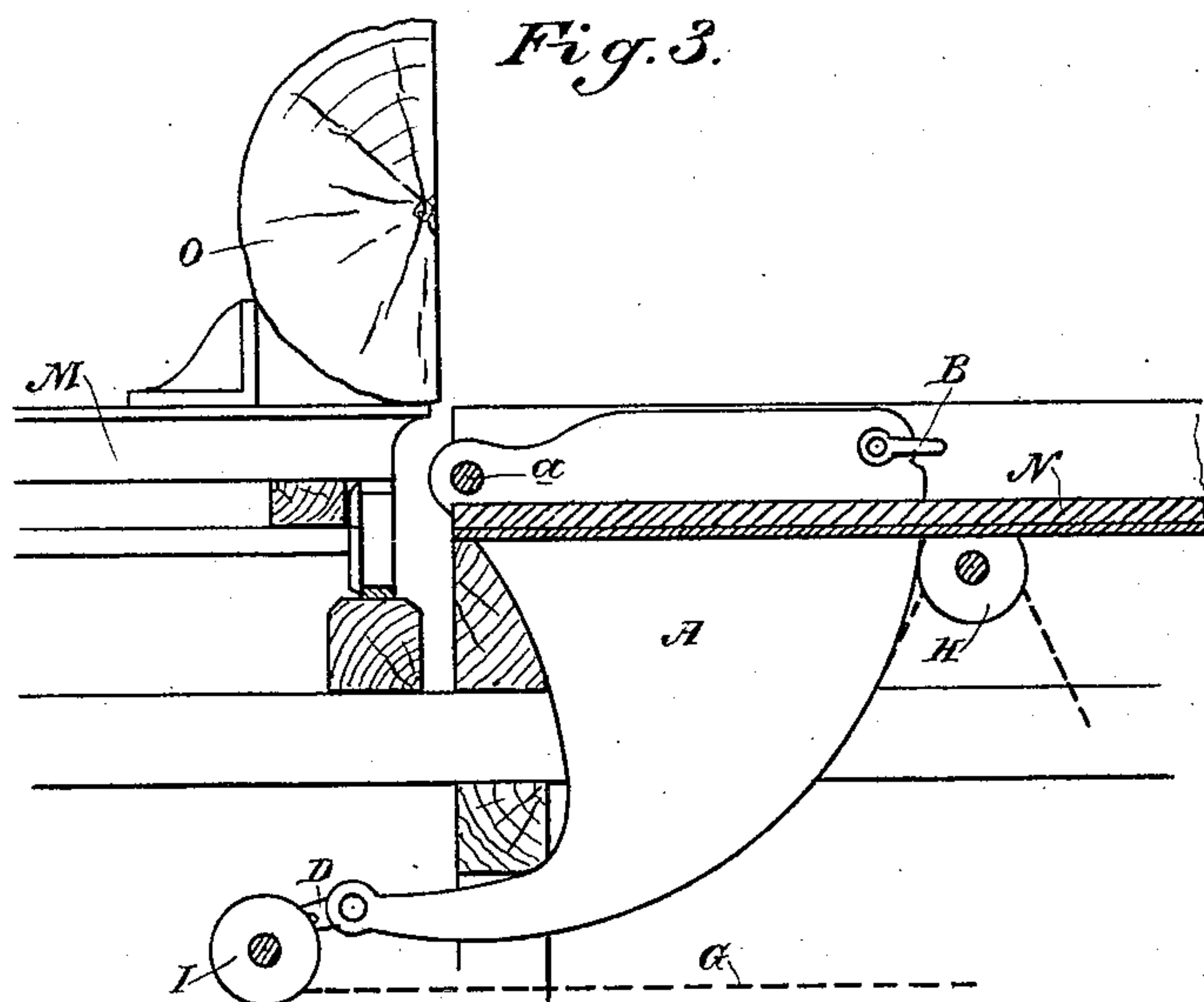
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UNITED STATES PATENT OFFICE.

DAVID EVANS, EDWIN H. PERCY, AND BETHUNE PERRY, OF EUREKA,
CALIFORNIA.

SKID FOR LOADING AND HANDLING LOGS.

SPECIFICATION forming part of Letters Patent No. 475,011, dated May 17, 1892.

Application filed October 30, 1891. Serial No. 410,399. (No model.)

To all whom it may concern:

Be it known that we, DAVID EVANS, EDWIN H. PERCY, and BETHUNE PERRY, citizens of the United States, residing at Eureka, Humboldt county, State of California, have invented an Improvement in Skids for Loading and Handling Logs; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to the general class of log-handling machinery, and particularly to the class of devices for loading the logs on the sawmill-carriage and handling them thereon.

Our invention consists in the novel skids, their arrangement and construction, and the means for operating them hereinafter fully described, and specifically pointed out in the claims.

The object of our invention is to provide an apparatus or machine for loading or handling logs in sawmills and other places by power, said object being accomplished by a novel arrangement, construction, and combination of parts in such a manner as to provide a simple, convenient, and easily-operated machine for this purpose, which will handle the logs from the mill bed or deck to the saw-carriage, load them quickly onto the carriage, will adjust them rapidly thereon to a proper position in relation to the head-blocks, and will turn them down on the carriage, when so desired, into a new position and readjustment for sawing.

Referring to the accompanying drawings for a more complete explanation of our invention, Figure 1 is a general plan of our apparatus or machine. Fig. 2 is a vertical section of the same. Fig. 3 is a side elevation of the same, showing its position when not in use. Fig. 4 is a similar view showing it in the act of turning a log. Fig. 5 is a similar view showing it in the act of loading and adjusting the log parallel to the line of saws on the saw-carriage.

A A are two skids. These consist of pieces or plates of suitable material having in general outline a sector shape. They are pivoted at *a* at their inner angle, and each is provided on its face with a chain-groove *a'*. At its upper corner each skid has a bail B, in

which the chains *c* of the grabs C are to be hooked. At the lower corner the skid is provided with a clevis or clip D, which is in practice located between separated or spaced projecting lugs *a*², extending from the skid.

E is a shaft having at each end a winding-drum F.

G G are chains, one for each drum. The course of these chains is best seen in Fig. 2, where it will be observed that they pass around the drums F, thence upwardly to and over guide-pulleys H, thence around the grooved face of the skids, and are connected to the clips or clevises D, from which they again extend around front guide-pulleys I and back again to the winding-drums. Thus, by turning the drums, the chains wind off therefrom in one direction and wind up thereon in another direction, and in this movement, being attached to the skids, they turn said skids about their pivotal centers.

Suitable mechanism may be arranged to operate the drums. We have here shown the following: Upon the shaft E is a gear *e*. With this meshes a pinion *j* on a counter-shaft J. This counter-shaft carries a friction-pulley *j'*. K is a drive-shaft operated by a belt-pulley *k*. This shaft carries a friction-pulley *k'*, which is adapted to be thrown into and out of contact with the friction-pulley *j'*. L is another drive-shaft, Fig. 2, operated by a belt-pulley *l* and carrying a friction-pulley *l'*, adapted to be thrown into and out of contact with the friction-pulley *j'*. These friction-pulleys are so arranged that by operating each as desired the drums may be turned in one direction or the other to raise or lower the skids.

In Fig. 3 we have shown the general position of the mechanism with respect to the parts with which it is used. M represents the sawmill-carriage and N the mill-bed or deck. O represents a log on the sawmill-carriage. In this figure the skid is shown as being lowered in a position ready for use.

In Fig. 4 we have shown the grab C in engagement with the log and the skid in the act of turning the log by its receding motion. When the turning is complete, the motion of the skid is reversed and the log shoved back to its proper position on the carriage.

In Fig. 5 we show the skid in the act of loading and adjusting the log parallel to the line of saws on the saw-carriage.

The general operation of the machine is as follows: Friction-pulley k' is brought into contact with friction-pulley j' , whereupon the chains are wound up, thus raising the skid and pushing the log back on the carriage, as in Fig. 5, or, as in Fig. 4, after the log has been turned. When it is desired to turn the log, the skid is raised, as in Fig. 5, the grabs C are fastened to the log and hooked to the bail B, and then the friction-pulley l' is brought in contact with the friction-pulley j' and the skid is lowered, whereby the log is turned.

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

1. In a machine for the general handling, loading, or turning of logs, the pivotally-secured sector-shaped skids, a winding mechanism, and an endless chain therefrom passing along the curved face of the skid and connected with the lower corner of the same, whereby said skids are turned about their pivotal centers in either direction of the winding mechanism, substantially as herein described.

2. In a machine for the general handling, loading, or turning of logs, the sector-shaped skids and the guide-pulleys, in combination with a winding mechanism including endless chains passing over said pulleys and along the curved faces of the skids and winding-drums for the chains, said skids being pivotally secured at their inner angles, whereby they may be turned about their pivotal centers by the movement of the chains in either direction, substantially as herein described.

3. In a machine for the general handling, loading, or turning of logs, a winding mechanism including endless chains connected with a winding-drum and sector-shaped skids pivotally secured at their inner angles, whereby

the skids turn about their pivotal centers in either direction of the chains, said skids having their curved faces provided with guiding-grooves for the chains, substantially as herein described.

4. In a machine for the general handling, loading, or turning of logs, the sector-shaped skids pivotally secured at their inner angles, having clevises secured to their lower angles, a winding-drum, and endless chains therefrom connected with opposite ends of the clevises, and suitable guides for the chains, substantially as herein described.

5. In a machine for the general handling, loading, or turning of logs, the combination of the sector-shaped skids pivoted at their inner angles, the chains connected with the lower corner of said skids, the guide-pulleys for directing said chains along the faces of the skids, and the winding-drums about which said chains pass and whereby they are operated in either direction, substantially as herein described.

6. In a machine for the general handling, loading, or turning of logs, the combination of the sector-shaped skids pivoted at their inner angles, the bails secured to the upper corners of said skids for receiving the engaging devices for the logs, the chains connected with the lower corner of said skids, the guide-pulleys for directing the chains along the faces of said skids, the winding-drums about which said chains pass, whereby they are operated in either direction, and mechanism for operating said drums, substantially as herein described.

In witness whereof we have hereunto set our hands.

DAVID EVANS.
EDWIN H. PERCY.
BETHUNE PERRY.

Witnesses:

H. W. WAUDESFORD,
H. C. DEERING.