

C. H. SMITH.
Sawing-Machines.

No. 137,626.

Patented April 8, 1873.

Fig: 1.

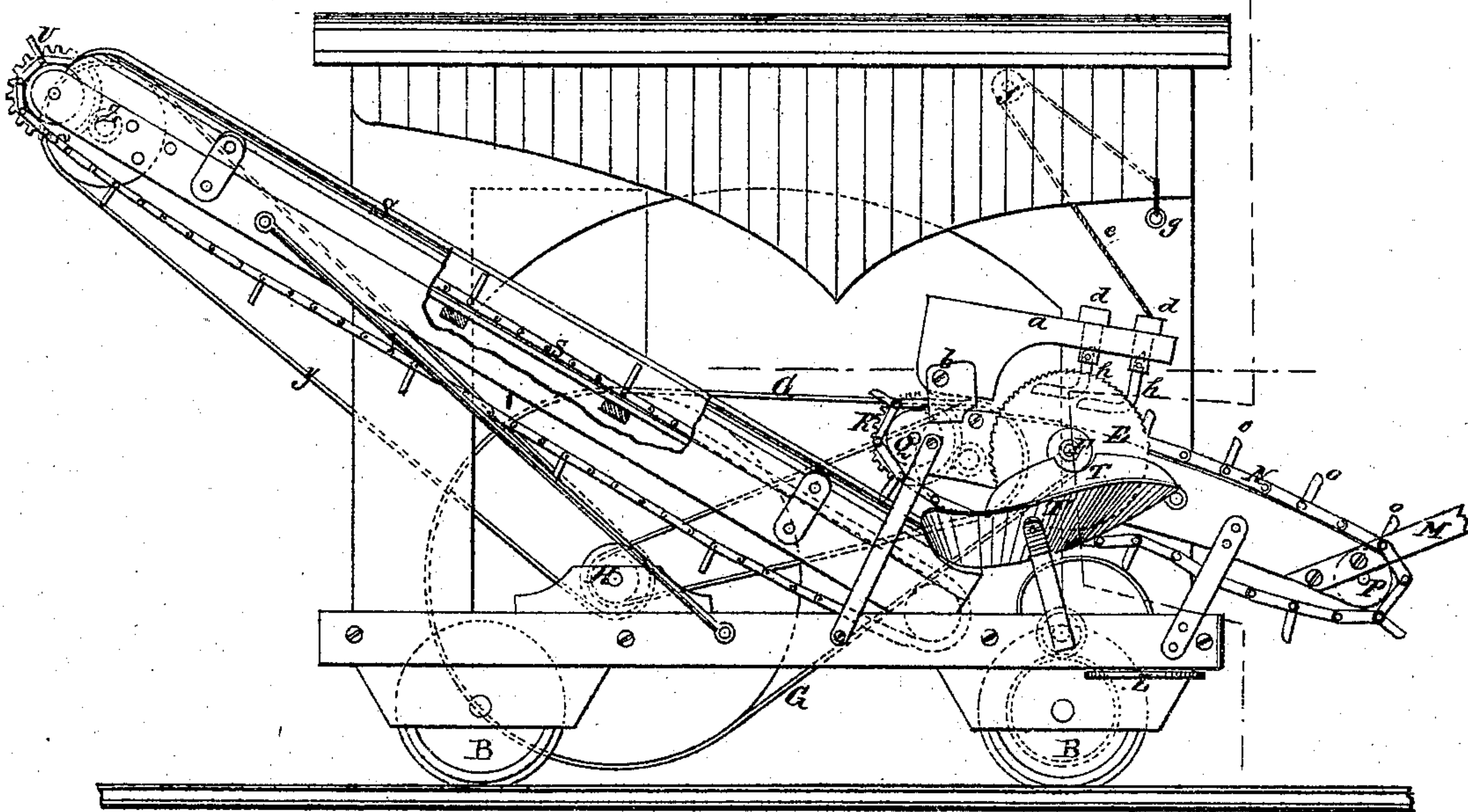
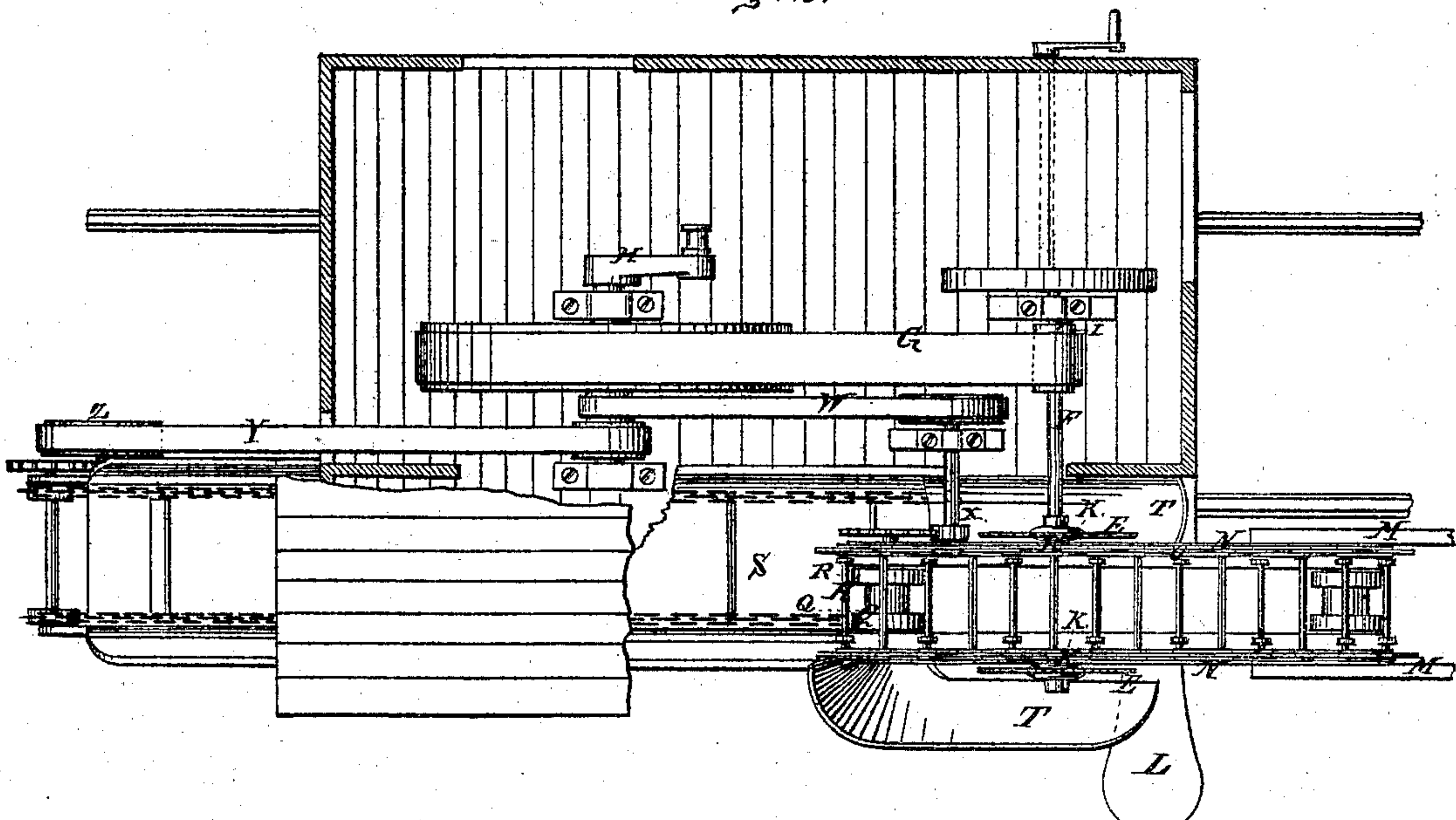


Fig: 2.



Witnesses:

Chas. Nida.
Esquiquet

Inventor:

C. H. Smith

PER

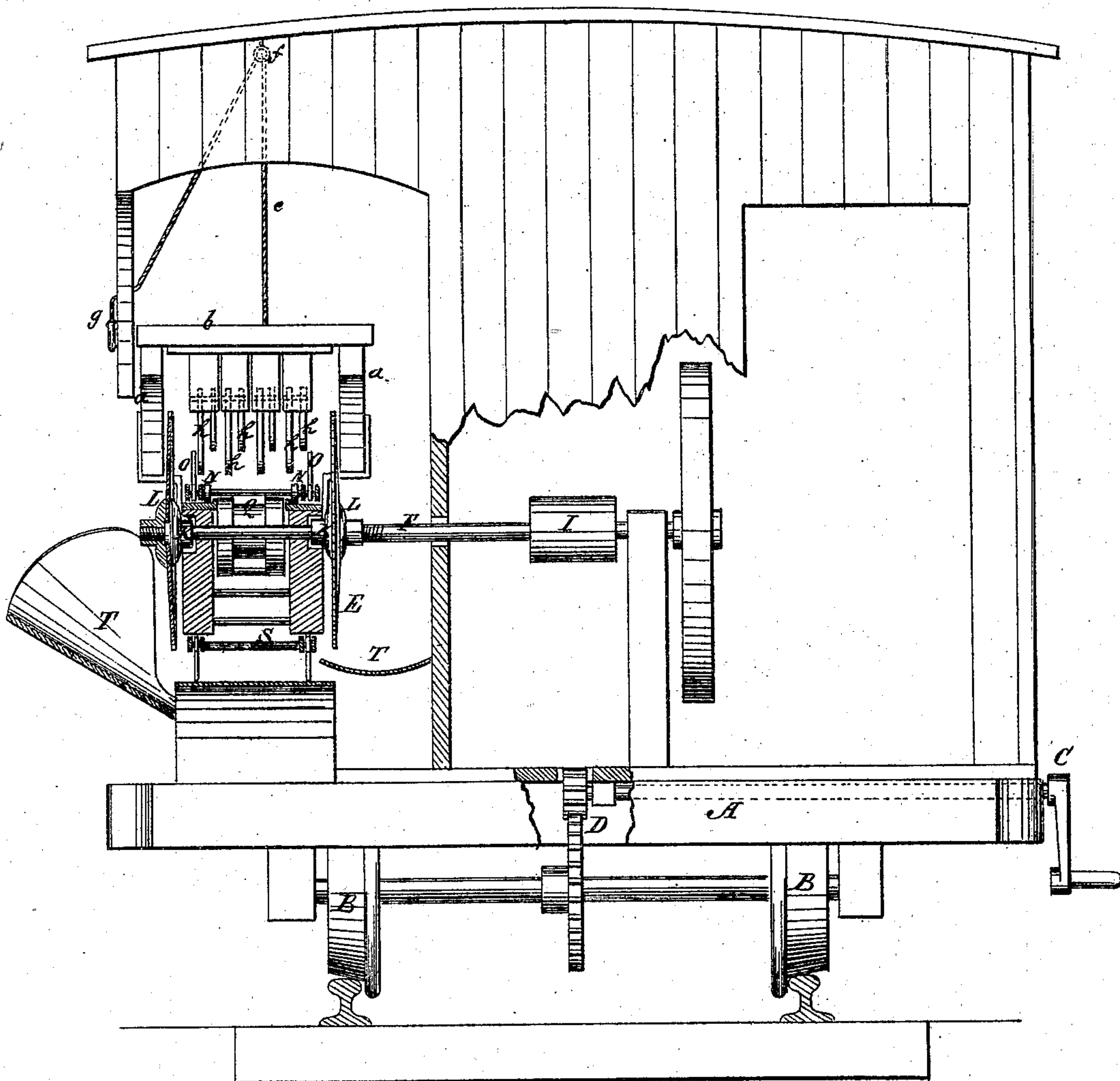
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UNITED STATES PATENT OFFICE.

CHARLES H. SMITH, OF FARIBAULT, MINNESOTA.

IMPROVEMENT IN SAWING-MACHINES.

Specification forming part of Letters Patent No. 137,626, dated April 8, 1873; application filed February 8, 1873.

To all whom it may concern:

Be it known that I, CHARLES H. SMITH, of Faribault, in the county of Rice and State of Minnesota, have invented a new and Improved Wood-Sawing Machine, of which the following is a specification:

The invention consists in the improvement of wood-sawing machines, as hereinafter described and subsequently pointed out in the claims.

Figure 1 is a side elevation of my improved wood-sawing machine. Fig. 2 is a plan view of the machinery and horizontal section of the house for inclosing it, and Fig. 3 is a transverse sectional elevation taken on the line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the platform. It is mounted on car-wheels B, and has a hand-crank, C, which gears, by the wheels D, with one of the axles for moving the machine up to the pile of wood from time to time. E represents a couple of circular saws mounted on an arbor, F, near one corner of the platform, and raised in suitable supports above the platform. One saw is on the end of the arbor and directly above the edge of the platform. The other is as far inward of the platform as the length to which the wood is to be cut, and beyond this the mandrel projects sufficiently for the application of the driving-belt G, which works on a pulley, I, from a large pulley on the driving-shaft H, to which the engine which is to be mounted on the platform will be connected. The inside collars K, for clamping the saws on the arbor, are slightly convex, and the outside collars L are correspondingly concave to concave the saws on the sides fronting each other, as represented in Fig. 3, so that the middle pieces of wood will not bind at the ends with the saws, particularly along the middle. The collars L are screwed up against the saws on threads pitched, so that in case the saws get bound or cramped in the wood too hard they will unscrew and release the saws. M represents a wood-rack projecting forward from the space between the saws and inclining upward, on which the wood is placed as it is taken from the pile to be presented to

the saws. At the bottom of this rack is an endless carrier or table, consisting of the machine-chains N and projecting arms O working over the rollers P Q, which takes the long pieces of wood laid on the rack one by one, and carries them up to the saws, and carries the middle pieces beyond them to the point R, where it discharges them to the elevator S. The end pieces fall down the chutes T to the same elevator, and all are carried by it up to the point U, from which they are delivered to pilers. A platform or stand, L, projects from the side of the platform A under the front of the saws for the sawyer to stand on for overlooking the saws and adjusting the wood on the carrier, if necessary, as it is presented to the saws. This platform swings under the main platform when not in use. The roller Q of the carrier N O is driven by the belt W and counter-shaft X, and the elevator is driven by the belt Y, which works from the crank-shaft H onto a pulley, Z, on the upper roller.

The guard over the saws to protect the attendants from them consists of a light frame of two bars, *a*, pivoted at *b*, and cross-bars *d* extending from one to the other over the saws. A cord, *e*, connected to the front end and passing over the pulley *f*, hangs down at *g*, where it is convenient to be reached by the sawyer to swing the frame up away from the saws when they are to be filed. *h* represents the presser-bars for holding the wood on the carrier and controlling it. They consist of a number of right-angled bars pivoted at one end to the under side of the guard-frame, near the front of the saws, and extending rearward at the other ends along the space between the saws, about to the rear of them. They are so numerous and such different lengths that they are adapted to pieces of wood of all sizes within the common range. The pieces of wood are carried against the knives of these bars before they are entirely cut off, and swing them back until they pass under them, and the bars then rest on the pieces until they pass beyond the saws. These bars being connected to the guard-frame are lifted out of the way with it when the saws are to be filed.

Having thus described my invention, I claim

as new and desire to secure by Letters Patent—

1. The wood-holding triangles pendent between the saws and preventing the wood from falling or being thrown out, as described.

2. The combination of the chutes T with the saws and the elevator, substantially as specified.

3. The relative arrangement of the wood-rack, endless carrier, saws, and elevator with the truck-frame or movable platforms A, substantially as specified.

CHARLES H. SMITH.

Witnesses:

THOMAS S. BUCKHAM,

T. B. CLEMENT.