

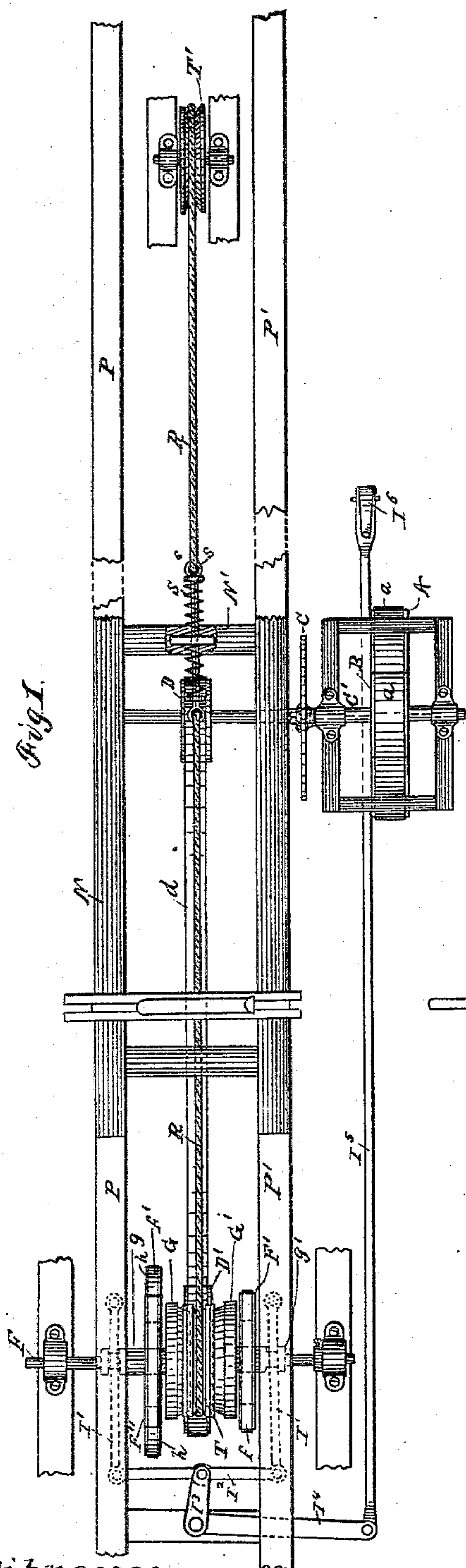
(No Model.)

W. M. WILKIN.

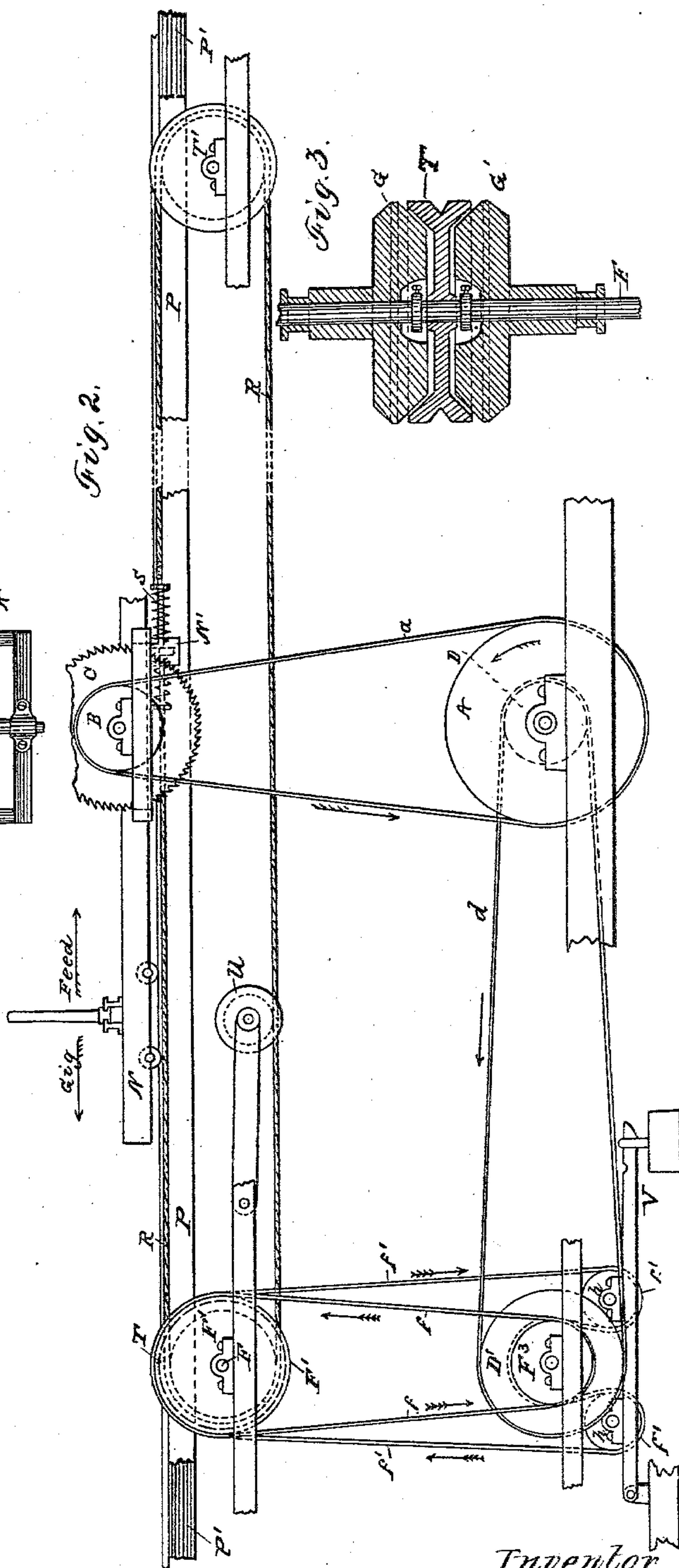
# FEED MECHANISM FOR SAW MILLS.

No. 286,357.

Patented Oct. 9, 1883.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## FEED MECHANISM FOR SAW-MILLS.

SPECIFICATION forming part of Letters Patent No. 286,357, dated October 9, 1883.

Application filed April 18, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM M. WILKIN, a citizen of the United States, residing at East Saginaw, in the county of Saginaw and State of Michigan, have invented certain new and useful Improvements in Rope Feed and Gig Mechanism for Saw-Mills; and I do hereby 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.

This invention consists in providing a new and improved rope feed and gig apparatus for operating the log-carriage of a saw-mill.

The invention is illustrated in the accompanying drawings, as follows:

Figure 1 is a top or plan view of a saw-mill in which this invention is applied. Fig. 2 is a side elevation. Fig. 3 is a detail of construction, being a section of the friction-gearing.

The parts shown are indicated by letters of reference, as follows:

P P' are the carriage tracks or ways. N is the carriage. C is the saw, and C' the saw-arbor. B is the driving-pulley on the saw-arbor. A is the main driving-pulley on the main shaft. D is the feed and gig driving pulley on the main shaft. d is the feed and gig driving belt. D' is the main pulley on the feed and gig counter-shaft, which is on the same floor of the mill as the main shaft. F is a second counter-shaft, arranged immediately below the carriage-way, and is in function the same as a rag-shaft, and for convenience will be called the "rag-shaft." F' and F'' are pulleys on the shaft F. f is a direct-acting belt, running from the pulley F<sup>3</sup> on the counter-shaft to the pulley F' on the rag-shaft. f' is a back-loop belt, which runs from a similar pulley to F<sup>3</sup> on the other side of the pulley D', over reversing-pulley h h to the pulley F'' on the rag-shaft. G and G' are friction-disks connected, respectively, with the pulleys F' and F''. T is a sheave mounted on the rag-shaft, and may either be mounted loose, as shown in Fig. 3, and held from lateral movement by collars, or it may be keyed on the shaft. T' is a second sheave at the opposite end of the carriage-way. R is a wire rope, running over the sheaves T and T', and hav-

ing its ends attached to the carriage by elastic draw-heads S. U is a tightener for the cable R, and V is a tightener for the reversing-pulleys h h.

In an application for a patent filed by me August 21, 1882, for a rope feed and gig apparatus, I refer to the fact that a carriage may be operated by a single cable attached to the carriage and running on sheaves placed at each end of the carriage-way on shafts which revolve oppositely, said sheaves being operated from said shafts by clutches.

The present invention is an improvement on the construction just referred to, in that the cable is propelled always from one end of the carriage-way, thus saving in gearing, and the manner of clutching is much improved.

The clutching apparatus shown here is substantially the same as that shown in another application by me of even date herewith, where it is applied to an ordinary rag-shaft. In this instance the double-cup friction-disk is made a sheave for propelling the cable.

The friction-disks G and G' are moved or shifted into connection by the gearing I I' I<sup>2</sup> I<sup>3</sup> I<sup>4</sup> I<sup>5</sup> I<sup>6</sup>, of which I<sup>6</sup> is the sawyer's lever. By this means the sawyer has perfect control of the clutching apparatus, and can reverse the movement of the sheave T at any time, and so change the direction of movement of the cable R, and thus of the carriage also.

What I claim as new is—

1. In the feed and gig mechanism of a saw-mill, the combination, substantially as herein shown, of a carriage having an elastic draw-head, two friction-disks sleeved upon one shaft, geared to run in opposite directions, and arranged to face each other, a rope-propelling sheave having friction-disks on each of its sides, mounted on said shaft between said sleeved disks, shifting mechanism for throwing either of said sleeved disks into contact with said sheave, and, finally, a propelling-cable attached to the log-carriage and passing over said sheave, and another sheave placed at the opposite end of the carriage-way.

2. In a saw-mill, the combination, substantially as shown, of the following elements: two sheaves placed one at each end of the carriage-way, a rope or cable passing over said sheaves and connected at its ends with the



log-carriage, two clutching devices geared to be revolved in opposite directions, and mounted upon the shaft of one of said sheaves and on opposite sides of said sheave, which is provided on its opposite sides with clutching-surfaces companionable with the said oppositely-rotating clutching devices, and, finally, a shifting apparatus, substantially as shown, for throwing either of said oppositely-rotating

clutching devices into gear with the adjoining to clutching-surface on the said sheave.

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

WILLIAM M. WILKIN.

Witnesses:

JNO. K. HALLOCK,  
ROBT. H. PORTER.