No. 762,713. PATENTED JUNE 14, 1904.

J. B. HART.

FEED GEARING.

APPLICATION FILED MAR. 17, 1904.

NO MODEL.

Fig. 1

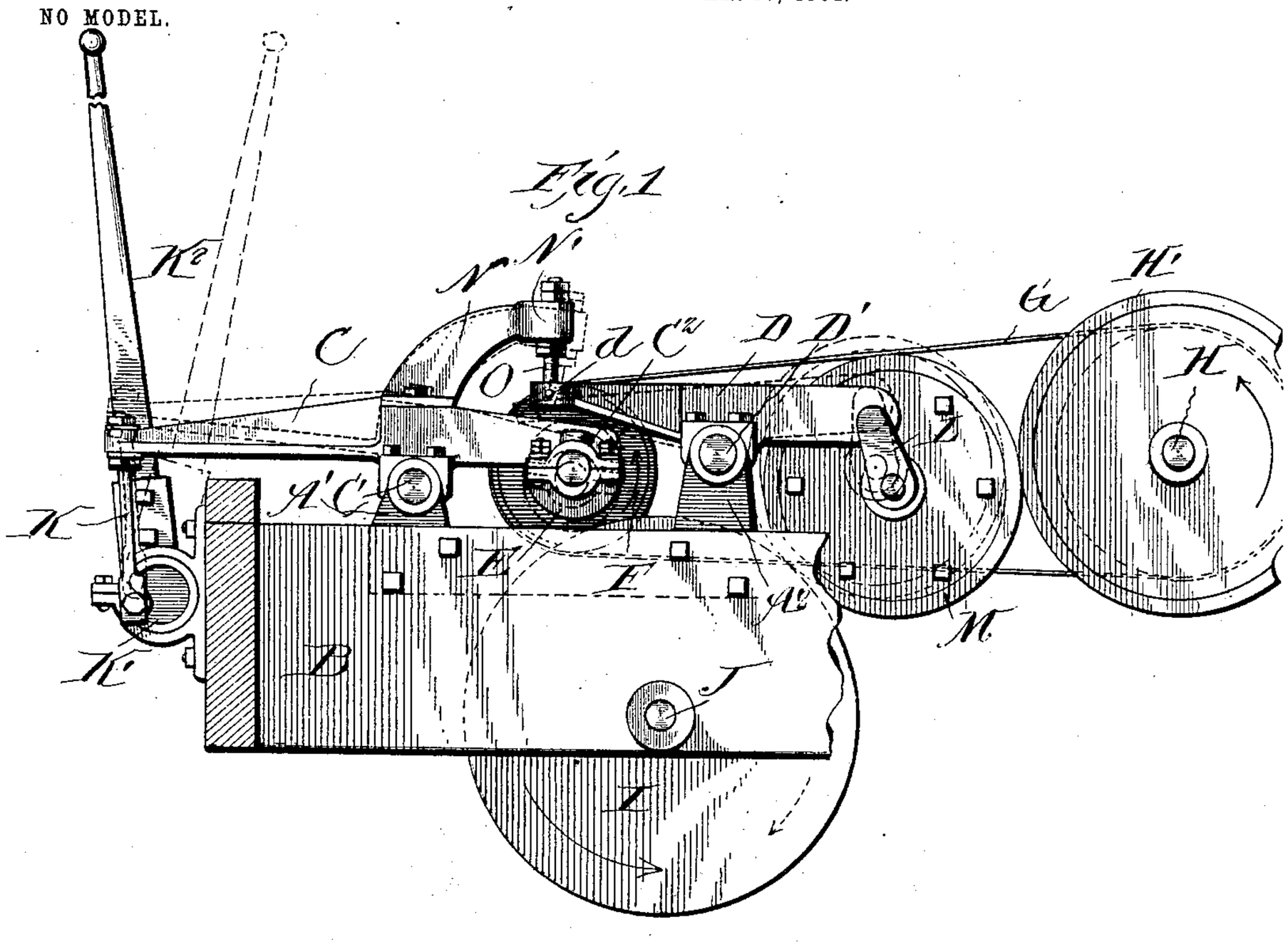
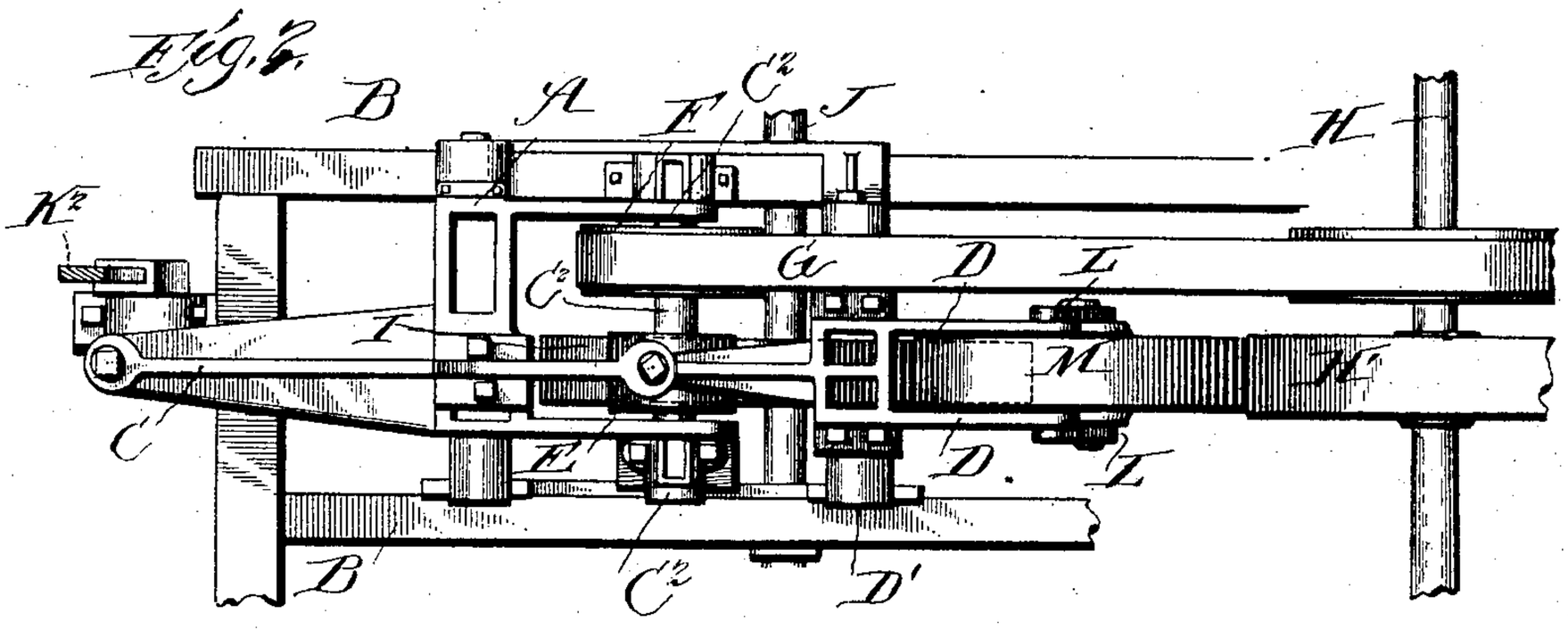


Fig. 2.



WITNESSES:

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No. 762,713. Patented June 14, 1904.

UNITED STATES PATENT OFFICE.

JOHN BATTELLE HART, OF CLARKSBURG, WEST VIRGINIA.

FEED-GEARING.

SPECIFICATION forming part of Letters Patent No. 762,713, dated June 14, 1904.

Application filed March 17, 1904. Serial No. 198,621. (No model.)

To all whom it may concern:

Be it known that I, JOHN BATTELLE HART, a citizen of the United States, residing in Clarksburg, in the county of Harrison and State of West Virginia, have invented certain new and useful Improvements in Feed-Gearing, of which the following is a specification.

My invention is an improvement in the feed mechanism of sawmill-carriages, and has for an object, among others, to provide a compact arrangement of devices whereby motion is transmitted from the saw-mandrel to the feed shaft or axle and to support the intermediate friction-wheel and the other friction-wheel as well in the feed-controlling frame.

The invention has for further objects other improvements; and it consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of my improvement, part of the saw-frame being shown in section and part broken away; and Fig. 2 is a top plan view thereof.

In carrying out my invention I employ what, for convenience of reference, I term the "feed-controlling frame" A, which is secured to the saw-frame B and is provided at its opposite ends with the stands A′ and A^2, in which are journaled the trunnions of the operating-rocker C and the intermediate rocker D, the trunnions C′ and D′ of such parts having suitable bearings in the stands A′ and A^2, as shown in the drawings. The rocker C is pivoted at C′ between its ends and has at its inner end bearings at C^2 for the shaft carrying the friction-pulley E, which, for convenience of reference, I term the "direct" friction-pulley. This pulley E is on the same shaft with the band-pulley F, which is connected by the belt G with a band-pulley on the saw-mandrel H, so the direct friction-pulley E is driven at all times in the same direction as the saw-mandrel, as will be understood from the arrow in Fig. 1, and when rocked from the full-line position shown in Fig. 1 to the position indicated in dotted lines, Fig. 1, the said direct friction-pulley will engage the friction-pulley I on the feed shaft or axle J and turn the said friction-pulley I and its shaft in a direction the reverse of that indicated by the arrow on said pulley I in Fig. 1 of the drawings. At its outer end the rocker C is connected by a link K with an eccentric K′, which may be turned by the handle-lever K^2, so as to raise and lower the outer end of the operating-rocker C, and so throw the inner end of the said rocker carrying the direct friction-pulley in such manner as to raise the said pulley E clear of or set it down into engagement with the friction-pulley on the feed shaft or axle J. The intermediate rocker is pivoted between its ends at D′ in the stand A^2 of the frame A and extends at one end to a point above the space between the friction-pulley I on the feed-shaft and a friction-pulley H′ on the saw-mandrel, and from this end of the rocker is suspended by links L the friction-pulley M, which when lowered to the position shown in full lines, Fig. 1, bears against both pulleys H′ and I and operates to transmit the movement of the pulley H′ on the saw-mandrel H to the pulley I on the feed-shaft J and to give to the said pulley I and its feed-shaft motion in the direction indicated by the arrow on the said pulley I in Fig. 1 of the drawings. At its end opposite that which carries the intermediate friction-pulley M the intermediate rocker D extends above the direct friction-pulley E and operates between the same and an overhanging arm N, mounted on the operating-rocker C and arranged to engage with the outer end *d* of the rocker D when the rocker C is adjusted to its dotted-line position, Fig. 1, and depress the outer end of the rocker D and lift the intermediate friction-pulley to the position indicated in dotted lines, Fig. 1, where it will rest clear of the friction-pulley H′ and will not transmit the motion of said pulley H′ to the feed-shaft pulley I.

In the operation of my invention it will be noticed that when the parts are in the position shown in Fig. 1 the pulley M drops by gravity to the position where it transmits the motion of the saw-mandrel pulley to the feed-shaft pulley, and in this position of parts the direct friction-pulley E is raised out of engagement with the feed-shaft pulley I. If now the operating-rocker be adjusted to the dotted-line position shown in Fig. 1, the pulley E will be lowered into engagement with

the feed-shaft pulley I, and the intermediate friction-pulley will be raised out of operating position, the said direct and intermediate friction-pulleys being both supported in the same frame and arranged to operate alternately in driving the feed-shaft pulley to secure the feeding of the carriage in opposite directions, as desired.

In order to provide for adjusting the engagement of the overhanging arm N with the intermediate rocker, I prefer to provide the said arm with a pin O to bear upon the outer end of the intermediate rocker, said pin being in the form of a bolt and nuts being provided to secure it in any desired adjustment in the head N′ of the overhanging arm N.

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

1. The improvement in sawmill-carriage feeds herein described consisting of the feed-controlling frame provided with stands at its inner and outer ends, the operating-rocker pivoted between its ends to the outer stand, operating means connected with the outer end of the operating-rocker the direct friction-pulley supported at the inner end of the operating-rocker, a band-pulley in connection with said direct friction-pulley, the intermediate rocker pivoted between its ends to the inner stand of said frame and extending at its outer end over the direct friction-pulley, the intermediate friction-pulley suspended from the inner end of the intermediate rocker, an overhanging arm secured to the operating-rocker and projecting above and adapted to operate on the outer end of the intermediate rocker whereby such end of the intermediate rocker may be depressed to raise the intermediate friction-pulley when the direct friction-pulley is lowered to operate upon the feed-shaft pulley and the friction-pulley to be driven substantially as set forth.

2. The combination in a sawmill-carriage feed of the feed-controlling frame, the intermediate rocker pivoted between its ends to said frame, the intermediate friction-wheel carried at one end of the intermediate rocker, the operating-rocker having an overhanging arm operating upon the opposite end of the intermediate rocker the direct friction-pulley carried by the operating-rocker and the friction-pulley to be driven substantially as set forth.

3. The combination of the operating-rocker having an overhanging arm and the direct friction-pulley below the same, the intermediate rocker pivoted between its ends and extending at one end in position to be operated upon by the overhanging arm of the operating-rocker, the intermediate friction-pulley carried by the other end of the intermediate rocker and the friction-pulley to be driven, substantially as set forth.

4. The combination with the intermediate rocker pivoted between its ends and the intermediate friction-pulley carried by one end of the intermediate rocker of the operating-rocker engaging with the other end of the intermediate rocker the direct friction-pulley carried by the operating-rocker and the friction-pulley to be driven substantially as set forth.

5. The combination of the feed-controlling frame, the intermediate rocker pivoted thereto, the intermediate friction-pulley carried by the intermediate rocker, the operating-rocker pivoted to the feed-controlling frame and arranged to operate the intermediate rocker in one direction the direct friction-pulley carried by the operating-rocker and the friction-pulley to be driven, substantially as set forth.

JOHN BATTELLE HART.

Witnesses:
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