No. 768,023. PATENTED AUG. 23, 1904.

L. ANDRIEN.

PRINTING PRESS ATTACHMENT.

APPLICATION FILED SEPT. 27, 1902. RENEWED DEC. 31, 1903.

NO MODEL.

Fig. 1.

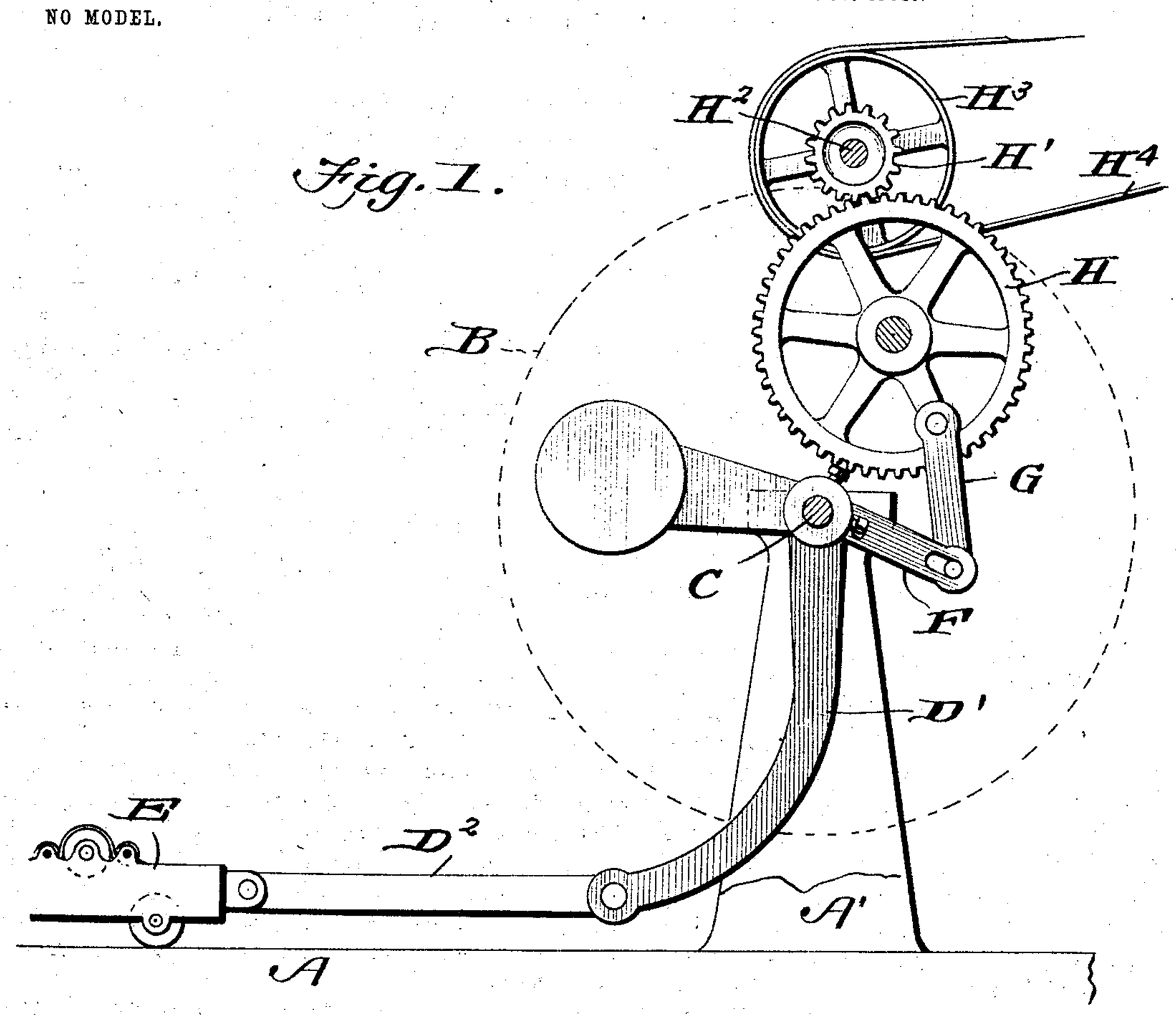


Fig. 2.

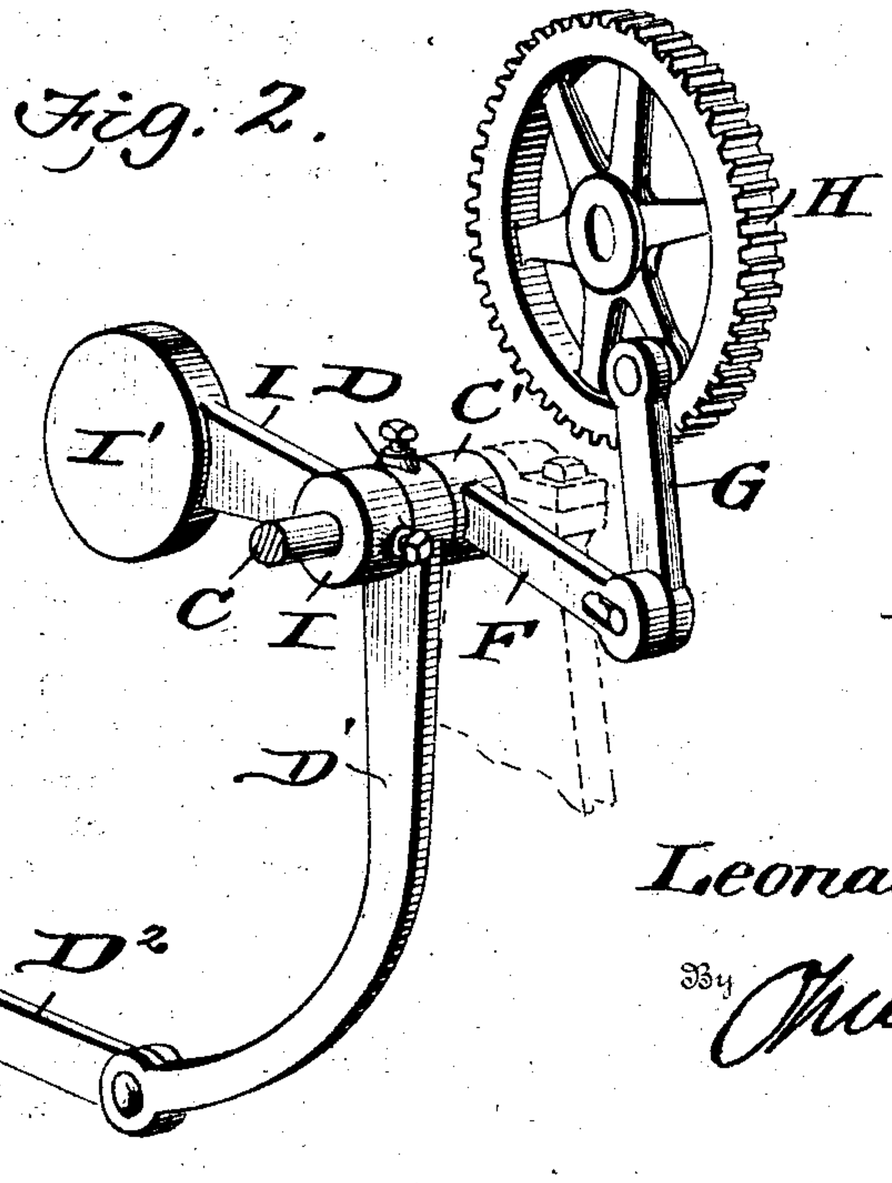
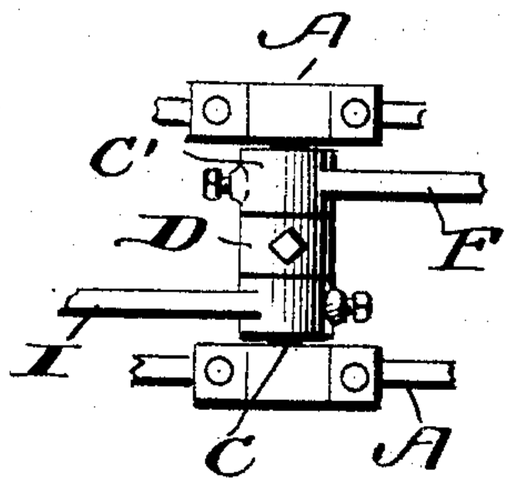


Fig. 3.



Witnesses

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No. 768,023. Patented August 23, 1904.

UNITED STATES PATENT OFFICE.

LEONARD ANDRIEN, OF PHILADELPHIA, PENNSYLVANIA.

PRINTING-PRESS ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 768,023, dated August 23, 1904.

Application filed September 27, 1902. Renewed December 31, 1903. Serial No. 187,387. (No model.)

To all whom it may concern:

Be it known that I, LEONARD ANDRIEN, a citizen of the United States, residing at Philadelphia, in the State of Pennsylvania, have invented a new and useful Printing-Press Attachment, of which the following is a specification.

This invention is an improvement in printing-presses, and relates particularly to the class of presses adapted for printing yarn for pile fabric and also to the press or drum known to the trade as the "Gilbert;" and the device relates particularly to an improved means for operating the carriage.

Heretofore the carriages, and especially the "Gilbert," have been operated by cables which are connected at one end to the ends of the carriages and at their opposite ends to a segment which is operated by clutch and gear wheels for reciprocating the carriage along the bed of the press. This means of operation has been found most objectionable for the reason that the cord or cable invariably stretches and often breaks, in either case causing the press or drum to be stopped, which causes the loss of much valuable time and labor.

It is therefore the object of my invention to eliminate these objectionable features and to provide a device by which the length of travel of the carriage may be so regulated that the same will be assured through the entire operation of the press.

With these briefly-stated objects in view my invention consists in certain details of construction and novelties of combination and arrangement, as will be fully described in the following specification and pointed out in the claims, reference being had to the drawings, in which—

Figure 1 is a diagrammatic side view of a press or drum embodying my improvements. Fig. 2 is a detail perspective view of my improvements, and Fig. 3 is a detail plan view.

By reference to the drawings, A designates a portion of the press having the usual bearing-post A′, in which is journaled a shaft carrying a cylinder or drum B, all of which being of the usual constructions and for that reason shown only in diagram. Suitably journaled in the post A′ is a short shaft C, carrying a sleeve D, from which depends an arm D′, and to the lower end of this arm is secured one end of the pitman D^2, its opposite end being pivotally connected to the ordinary carriage E, as shown most clearly in Fig. 1 of the drawings. The shaft C also carries a collar C′, from which runs crank-arm F, to which is connected a pitman or link-bar G, which is also pivotally connected to and carried by a gear-wheel H, journaled in any suitable manner at the side of the drum B. The said gear H is driven by a pinion H′, arranged upon a shaft H^2, which shaft also carries a pulley H^3, over which runs a belt H^4, that may be driven in any suitable manner from an adjacent shaft. This shaft H^2 may be supported in any convenient manner. The shaft C also carries an arm I, having a counterbalance-weight I′ formed integral therewith, as shown most clearly in Fig. 2 of the drawings. In practice I may find it advisable to secure an arm and weight to the opposite side of the drum to act as a balance for the carriage.

In operation motion is imparted to the gear H through the medium of the pinion, pulley, and belt, and as the gear is revolved the arm D′ is reciprocated by means of the pitman and crank-arm, and as the arm is swung back and forth the carriage will be caused to move forwardly into engagement with the cylinder and then return again to its first position precisely in the same manner as they are moved in the presses now in use.

From the foregoing the advantages of my improvement will readily appear to those skilled in the art to which it appertains, and it will be particularly noted that the operation of the carriage is positive, that it will be moved a certain distance at each movement of the arm, and, further, that there are no parts to get out of order, thus assuring a more perfect operation or feed of the carriage than is secured by the mechanism now generally employed. I desire to state, further, that the sleeve may be dispensed with and the depending arm, crank, and weight-arm cast upon a short shaft, that may be journaled in any suitable manner adjacent the drum, and also that minor changes may be made without depart-

ing from the broad principles of my invention.

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

An attachment for presses having a reciprocating carriage, a sleeve rigidly secured on the shaft of the press adjacent its outer end, said sleeve having an integral, depending, curved arm, a link pivotally secured at one end to the lower end of said arm, and pivotally secured at the outer end to the carriage, a shaft above the sleeve, a gear carried thereon, collars rigidly secured to the first-mentioned shaft on each side of the sleeve, an arm secured to the inner collar, a crank member pivotally secured at one end to the gear and at the other end to the last-mentioned arm, a weighted arm secured to the outer collar and on the side of the carriage, and means for driving the gear.

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Witnesses:
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