

No. 692,124.

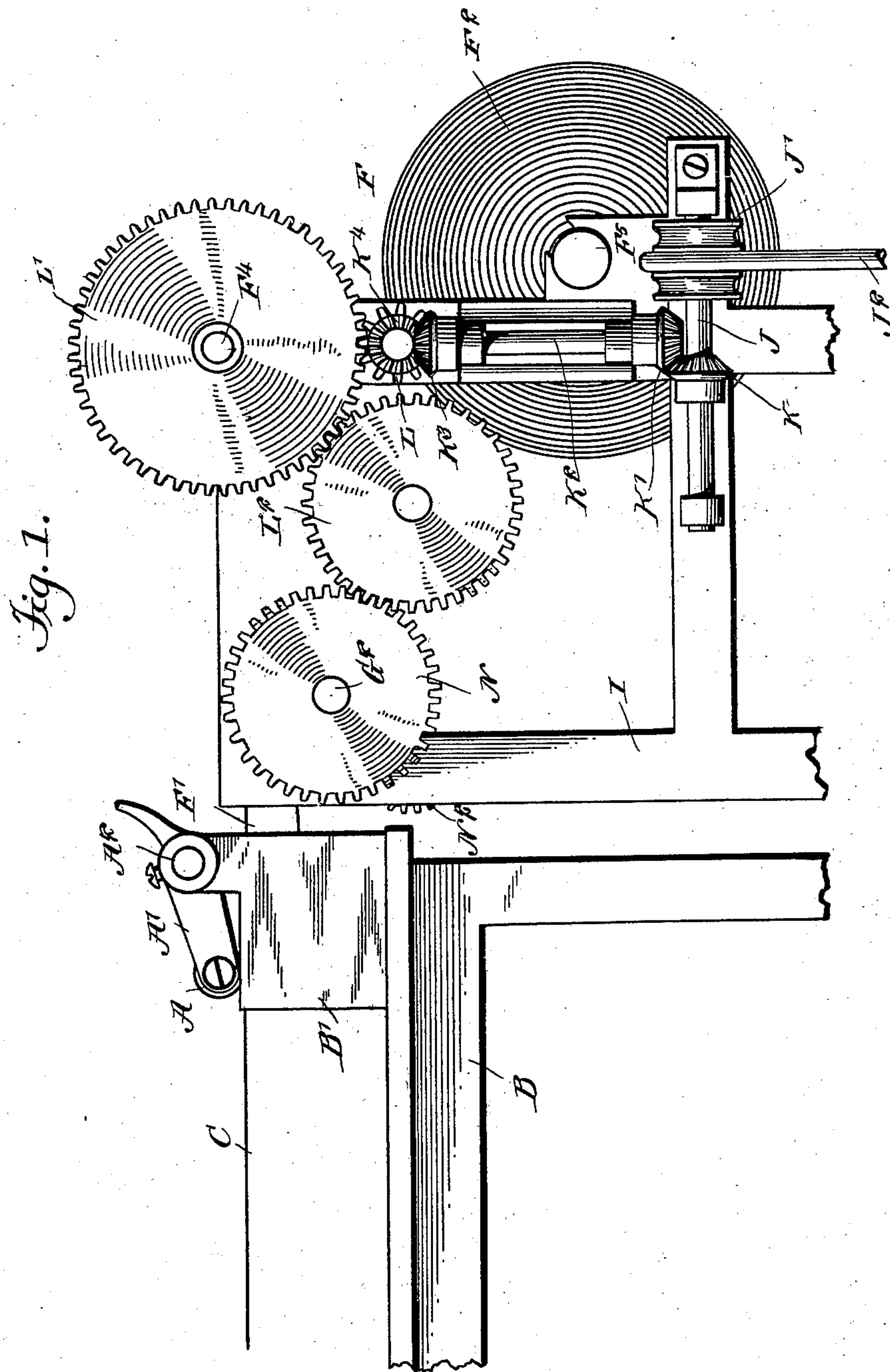
Patented Jan. 28, 1902.

M. A. DROITCOUR & G. F. KALKHOFF.
SHEETING ATTACHMENT FOR PRINTING PRESSES.

(Application filed July 12, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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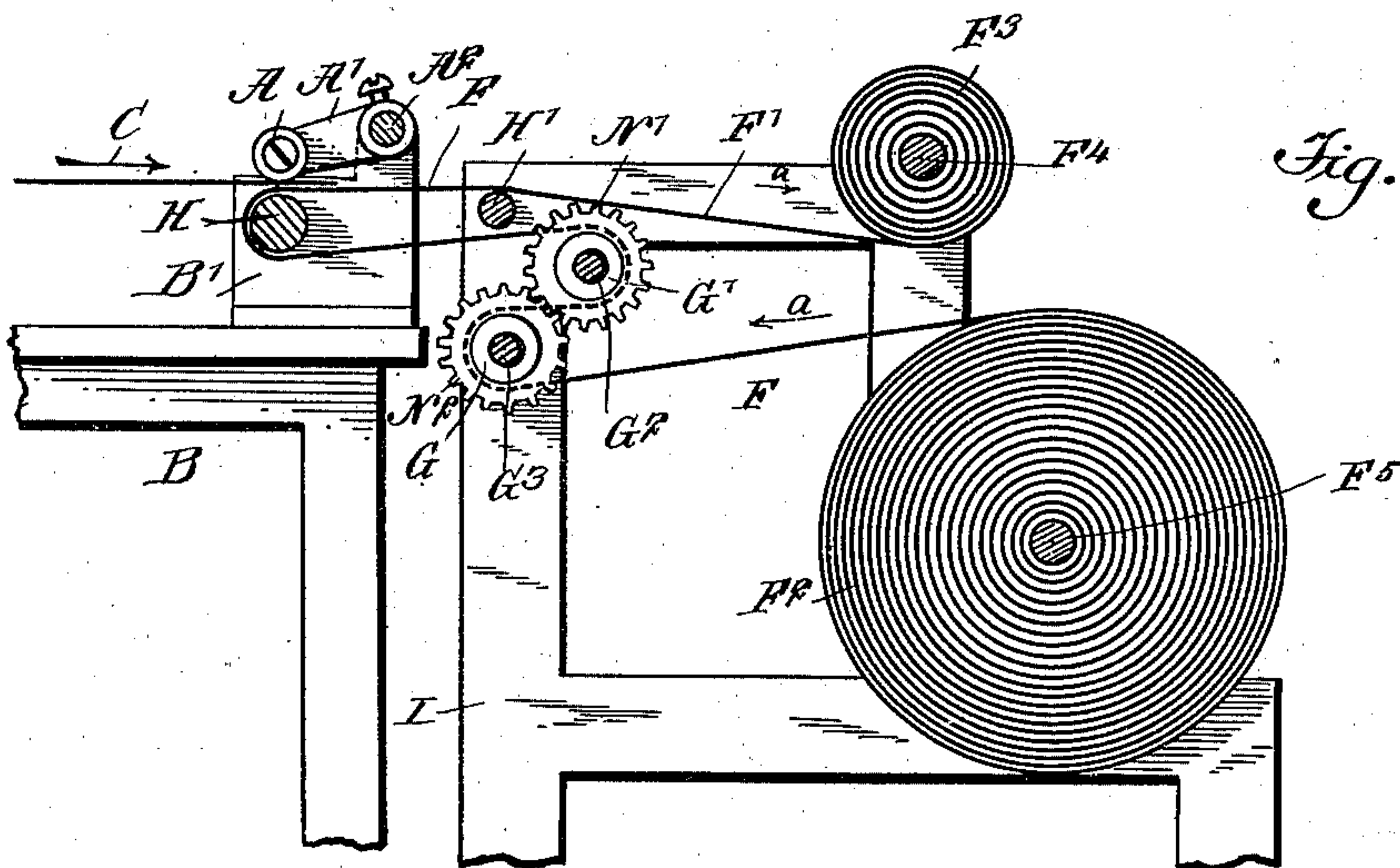


Fig. 2.

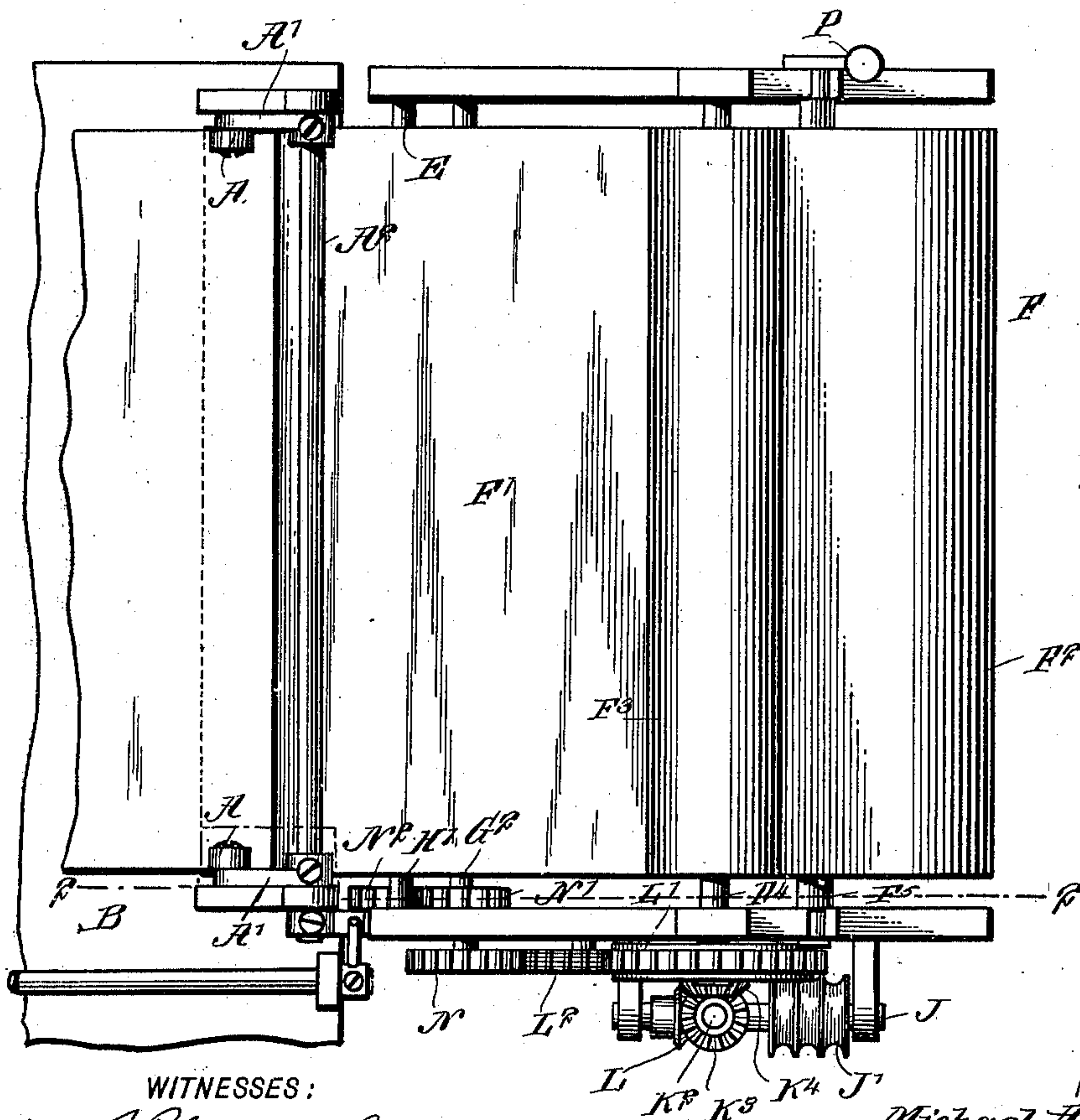


Fig. 3.

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UNITED STATES PATENT OFFICE.

MICHAEL ANDREW DROITCOUR, OF PITTSBURG, PENNSYLVANIA, AND
GUSTAV F. KALKHOFF, OF BROOKLYN, NEW YORK.

SHEETING ATTACHMENT FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 692,124, dated January 28, 1902.

Application filed July 12, 1901. Serial No. 67,979. (No model.)

To all whom it may concern:

Be it known that we, MICHAEL ANDREW DROITCOUR, of Pittsburg, in the county of Allegheny and State of Pennsylvania, and
5 GUSTAV F. KALKHOFF, of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, citizens of the United States of America, have invented a new and Improved Sheeting Attachment for
10 Printing-Presses, of which the following is a full, clear, and exact description.

The invention relates to delivery mechanisms of printing-presses; and its object is to provide a new and improved sheeting attachment arranged to take the printed sheets from the printing-press and wind the same up in an apron or web without one sheet touching or offsetting on the other, to allow the sheets to dry properly, and to prevent soiling
20 of the same, as too frequently occurs when piling the sheets by the fly upon the fly-table.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

A practical embodiment of our invention is represented in the accompanying drawings, in which similar characters of reference indicate corresponding parts in all the views.

30 Figure 1 is a side elevation of the improvement as applied. Fig. 2 is a reduced sectional side elevation of the same, the section being on the line 2 2 of Fig. 3; and Fig. 3 is a plan view of the same.

35 A pair of rollers A are journaled on arms A', secured to a transverse shaft A², journaled in bearings carried by a block B', held on the rear end of the fly-table B, located at the rear end of a cylinder printing-press of any improved construction, so that when the printing-press successively delivers the printed sheets C the latter are engaged on the top at the sides by the said rollers A to deliver the sheets successively upon the extended portion F' of an
40 apron or web F, unwinding from a roll F² and winding up as a roll F³, as is plainly shown in the drawings. The printed sheet is run down on tapes which extend from the impression-cylinder to the fly-board, and after the sheet
45 is at rest the rollers A (worked by the action of the fly-rod) drop on the sheet, which is then

caused to travel in the direction the apron is moving and at the same speed. The apron in its passage from the roll F² to the roll F³ passes around the feed-rollers G G', which, 55 with the roll F³, are driven in unison with the printing-press to give the apron F the desired and necessary traveling speed, so that the apron F takes the sheets with the ends spaced apart and winds up the sheets on the formation of the roll, with the sheets extending between successive layers or convolutions of the roll F³. The apron F after leaving the feed-roller G passes around the guide-roller H, journaled in the block B' and located below 60 the rollers A (see Fig. 2) to cause the sheet C to readily pass onto the extended portion F' of the apron F previous to rolling the sheets up in the roll F³. The extended portion F' passes over a guide-roller H' between 65 the roller H and the roll F³.

The shafts F⁴ F⁵ of the rolls F² F³ and the shafts G² G³ of the rollers G' G are journaled in suitable bearings on the frame I of the sheeting attachment, and on the said frame 75 is journaled a shaft J, carrying a pulley J', connected by a belt J² with a pulley on the fly-wheel shaft of the printing-press, so that a rotary motion is given to the shaft J in unison with the printing-press.

80 On the shaft J is secured a bevel gear-wheel K, in mesh with a bevel gear-wheel K', secured on the lower end of a vertically-disposed shaft K², journaled in suitable bearings on the frame I and carrying at its upper end 85 a bevel gear-wheel K³, in mesh with a bevel gear-wheel K⁴, journaled in the frame I and carrying a spur-wheel L, in mesh with a gear-wheel L', secured on the shaft F⁴ of the roll F³. The gear-wheel L' is in mesh with an intermediate gear-wheel L², in mesh with a gear-wheel N on the shaft G², and the latter is geared to the shaft G³ by the gear-wheels N' and N², as is plainly indicated in Figs. 2 and 3. Now when the shaft J is rotated rotary 95 motion is given to the shaft K², and the latter by the gear-wheel described rotates the roll F³ and the feed-rollers G and G' to cause the web or apron F to travel in the direction of the arrow a, to unwind from the roll F², and 100 to wind up on the roll F³.

A suitable friction device P (see Fig. 3) is

applied to the shaft F^5 to prevent the apron F from unwinding too fast from the roll F^2 . Both shafts F^4 F^5 are removably held in the frame I to allow of readily removing the shafts
 5 for slipping a new apron-roll onto the shaft F^4 and for removing the shaft F^5 and the roll F^3 to another machine for unwinding the apron and freeing the sheets.

Now from the foregoing it is evident that
 10 the printed sheets from the printing-press are successively delivered to the extended portion F' of the apron to be then wound up between adjacent layers or convolutions of the roll F^3 , so that the sheets do not touch each
 15 other, and consequently do not set off, as is so frequently the case when piling sheets by the usual fly on the fly-board.

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

20 1. A sheeting attachment for printing-presses, comprising a traveling apron provided with an extended portion for successively receiving the sheets from the printing-
 25 press, the apron being arranged for winding up in a roll with the sheets separated from each other and extending between successive layers of the roll, as set forth.

30 2. A sheeting attachment for printing-presses, comprising a traveling apron unwinding from a roll and winding up on a roll, means for extending the apron between the unwinding and winding-up rolls, the extended
 35 apron part being arranged at the rear of the printing-press and adapted to successively receive the printed sheets, as set forth.

40 3. A sheeting attachment for printing-presses, comprising a delivering-apron unwinding from a roll and winding up on a roll, means for extending the apron between the unwinding and winding-up rolls, the extended
 45 portion of the apron projecting over the rear end of the fly-table of the press, and a feed driven in unison with the press, for continually feeding the apron and winding it up into a roll with the sheets contained between
 adjacent layers of the roll, as set forth.

50 4. A sheeting attachment for printing-presses, comprising a delivering-apron unwinding from a roll and winding up on a roll, the apron having an extended portion between the unwinding and winding-up rolls, feed-rollers
 55 over which the extended portion of the apron passes, means for driving the feed-rollers from the winding-up roll, and means for rotating the winding-up roll in unison with the press, for continually feeding the apron and winding it up into a roll, with the sheets
 60 contained between adjacent layers of the roll, as set forth.

5. A sheeting attachment for printing-presses, comprising a traveling apron unwinding from a roll and winding up on a roll, feed and guide rollers for extending the apron be-
 65 tween the said rolls, the extended portion being arranged to receive the printed sheets successively from the press, and means for

imparting a traveling motion to the apron and for winding up the apron as a roll, as set forth.

70 6. A sheeting attachment for printing-presses, comprising an apron unwinding from one roll and winding up on a second roll, the said apron having an extended portion between the unwinding and winding-up rolls
 75 and upon which the printed sheets are successively delivered, and rollers arranged above the extended portion of the apron to engage the printed sheet on the top at the sides, as set forth.

80 7. A sheeting attachment for printing-presses, comprising an apron unwinding from a roll and winding up on a second roll, the apron having an extended portion between the unwinding and winding-up rolls, a guide-
 85 roller around which the extended portion of the apron passes to the winding-up roll, feed-rollers between the unwinding-roll and the guide-roller around which the apron passes, and rollers mounted to swing and located
 90 above the ends of said guide-roller, as set forth.

95 8. A sheeting attachment for printing-presses, comprising a traveling apron unwinding from a roll and winding up on a roll, feed-rollers and a guide-roller for extending the apron between the unwinding and winding-up
 100 rolls, the printing-sheets being successively delivered upon the extended part of the apron, a transverse shaft mounted to turn above the extended part of the apron, arms on the ends of said shaft and a roller jour-
 105 naled on each arm and located above the guide-roller around which the apron passes, as set forth.

110 9. A sheeting attachment for printing-presses, comprising a traveling apron unwinding from a roll and winding up on a roll, the apron having a part extended between the said rolls and adapted to receive the printed
 115 sheet from the press, feed-rollers around which the apron passes, a guide-roller around which the extended part of the apron passes, a gear connection between the winding-up roll and the feed-rollers, means for driving the
 120 winding-up roll in unison with the press, and rollers arranged above the extended portion of the apron and adapted to engage the printed sheet when the latter is delivered from the press, as set forth.

125 10. A sheeting attachment for printing-presses comprising a traveling apron unwinding from a roll and winding up on a roll, feed-rollers around which the apron passes from the unwinding-roll, a guide-roller journaled
 130 in a block at the rear end of the fly-table of a press and around which the apron passes, and a second guide-roller over which the apron passes to the winding-up roll, the apron being arranged to successively receive the sheets
 135 from the press, and means for driving the winding-up roll and the feed-rollers in unison with the press, as set forth.

11. A sheeting attachment for printing-

presses, comprising a traveling apron, unwinding from a roll and winding up on a roll, a pair of feed-rollers around which the apron passes from the unwinding-roll, a guide-roller 5 for the apron around which the apron passes, a second guide-roller over which the apron passes, a shaft journaled in bearings on the frame of the attachment and arranged to be driven in unison with the printing-press to 10 which the attachment is applied, a vertically-disposed shaft driven from the first-mentioned shaft, a driving connection between the vertically-disposed shaft and the shaft of the winding-up roll, and means for driving 15 the feed-rollers, from the winding-up roll, as set forth.

12. A sheeting attachment for printing-presses, comprising an apron arranged to un-

wind from a roll and wind up on a roll, the apron being provided with an extended portion 20 between the winding and unwinding rolls, the extended portion being arranged at the delivery end of the printing-press for successively receiving the sheets from the press, the apron being arranged to be wound up in 25 a roll with the sheets separated from each other and extending between successive layers of the roll, as set forth.

In testimony whereof we have signed our names to this specification in the presence of 30 two subscribing witnesses.

MICHAEL ANDREW DROITCOUR.

GUSTAV F. KALKHOFF.

Witnesses:

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EVERARD B. MARSHALL.