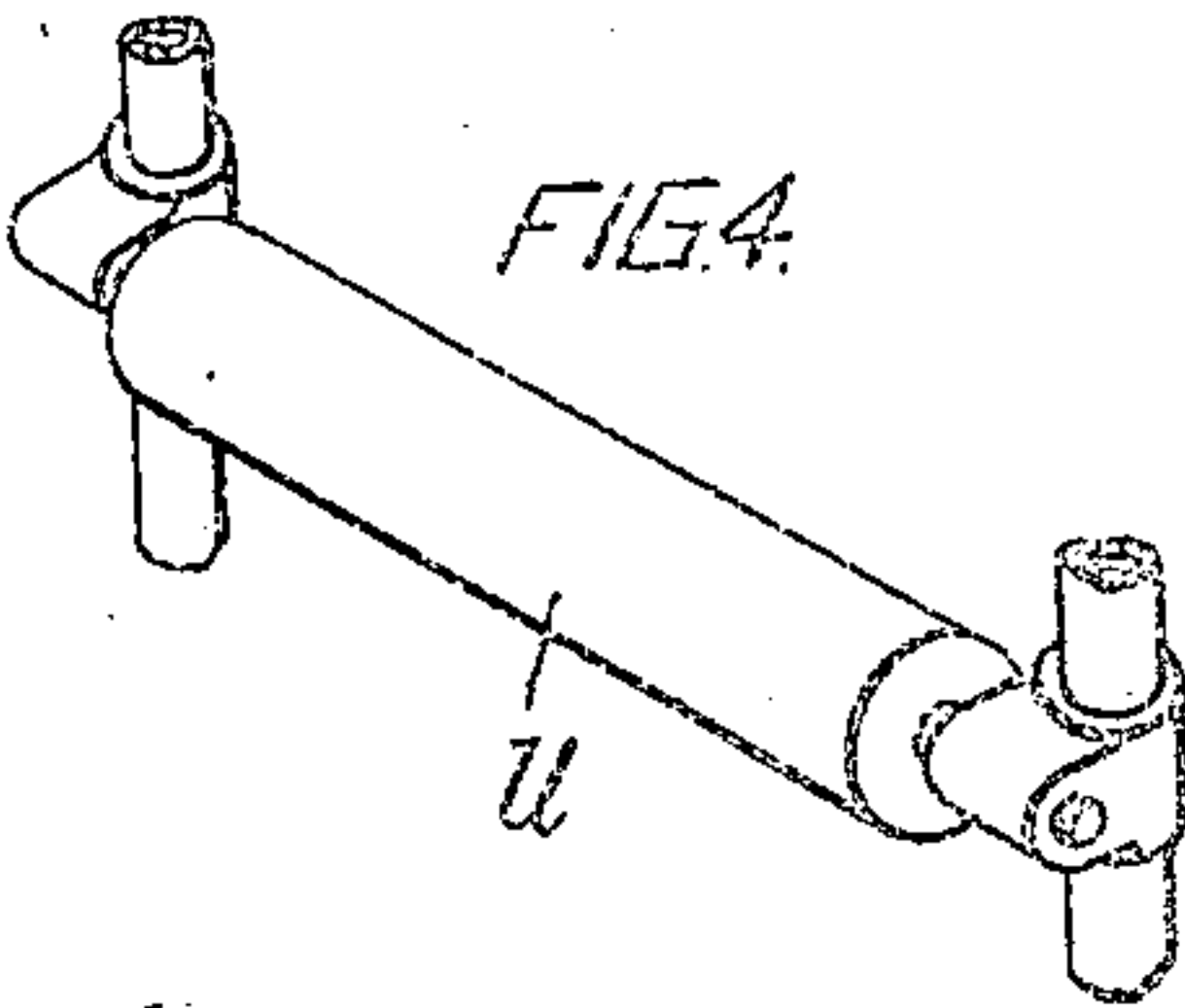
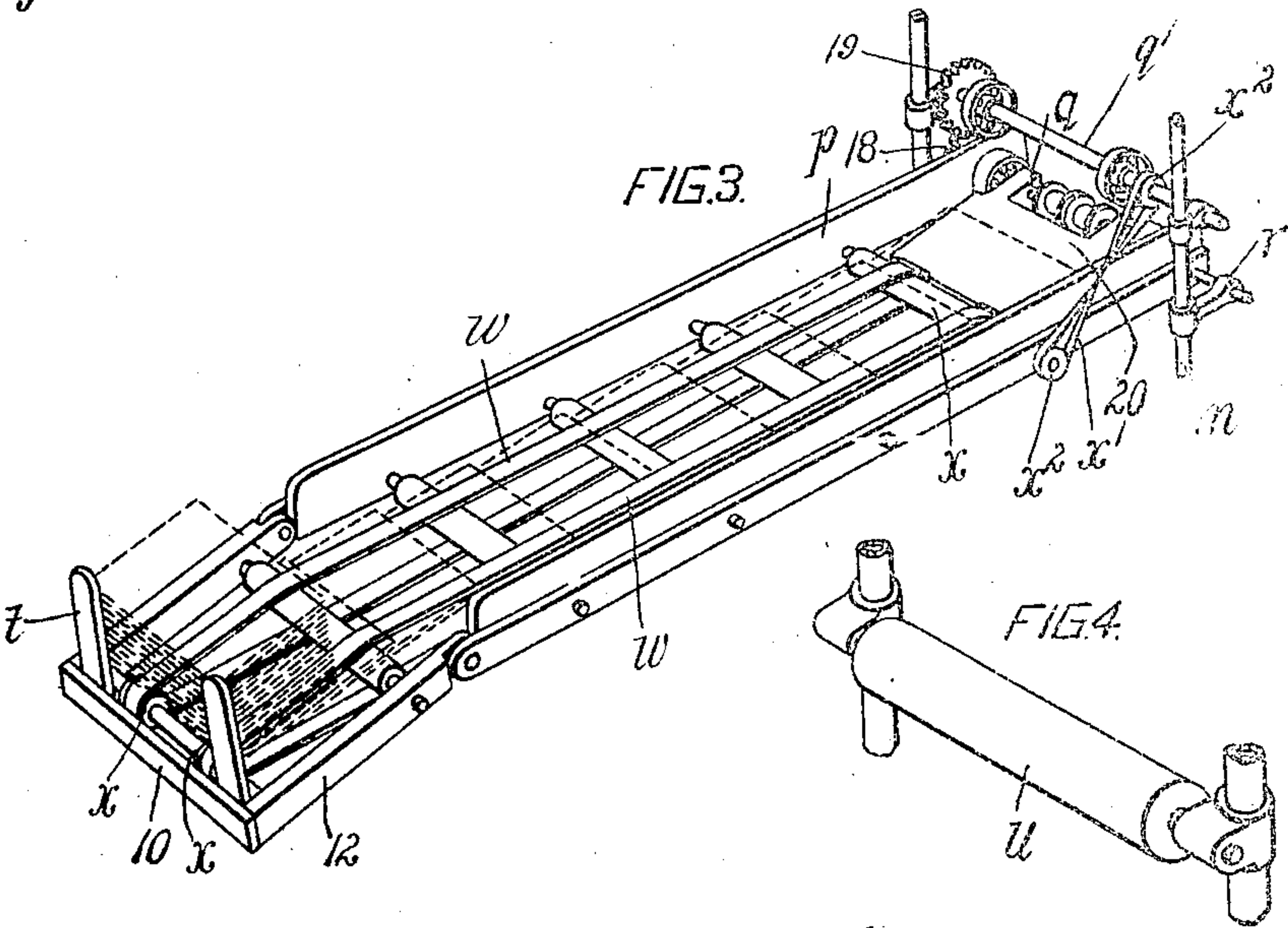
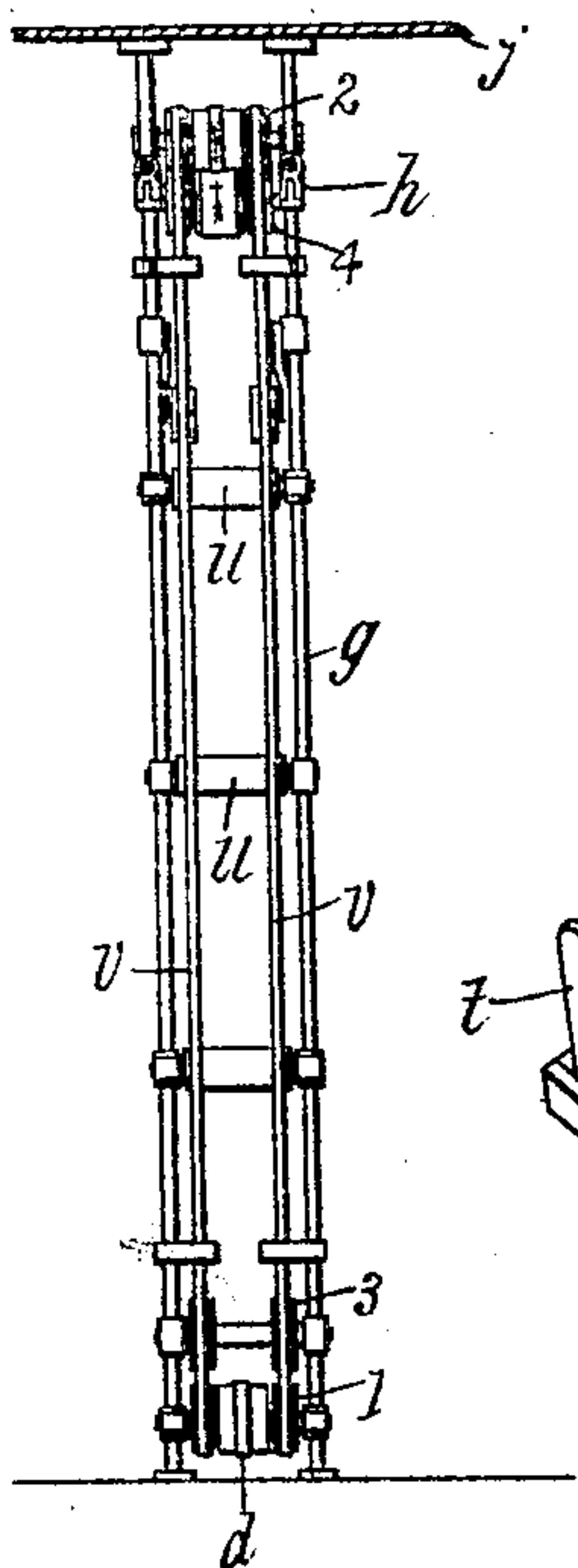
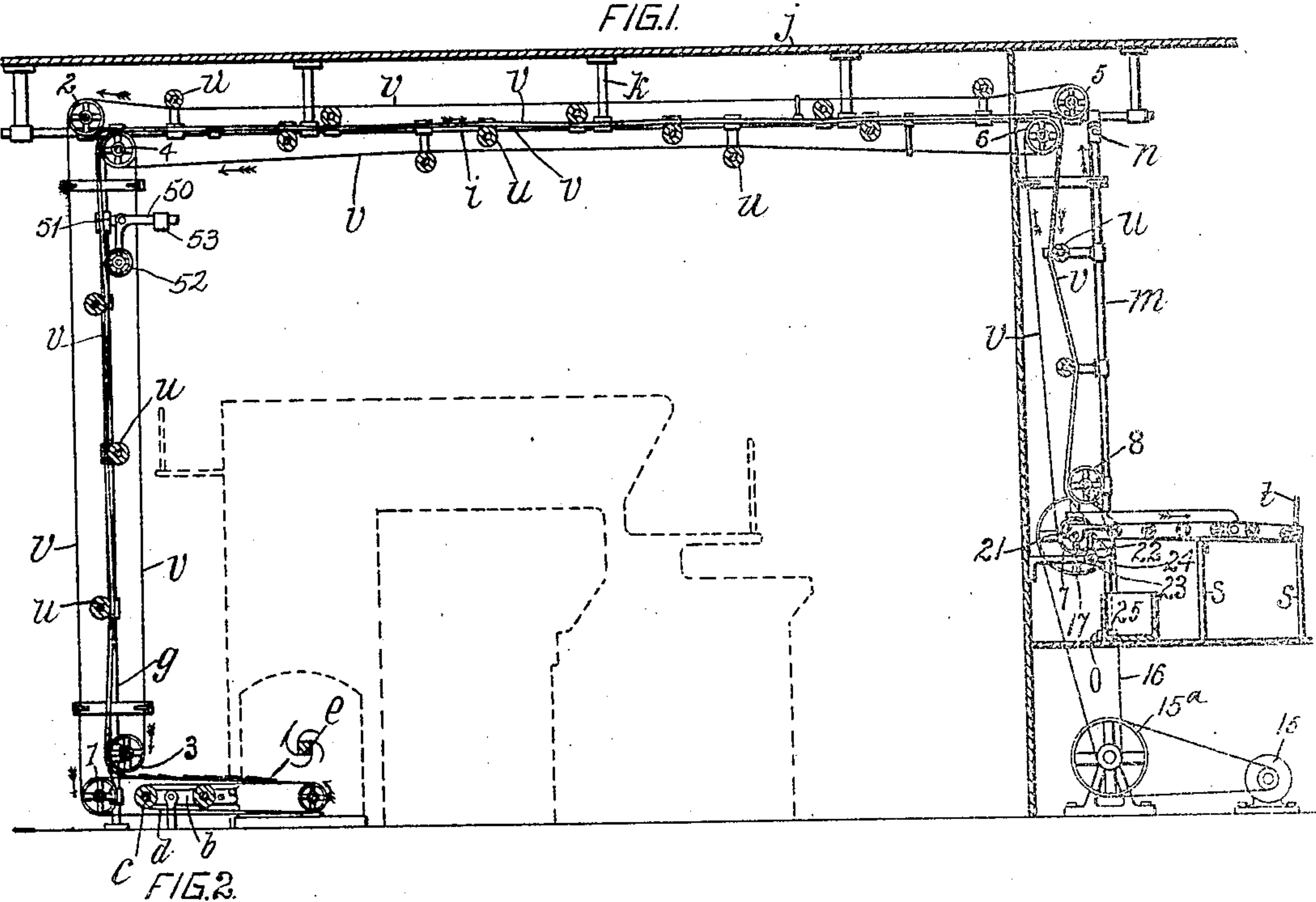


V. FILTEAU.  
CARRIER.

APPLICATION FILED NOV. 27, 1903.

2 SHEETS—SHEET 1.



Witnesses

*Alfred J. ...*  
*Victor Filteau*

*Victor Filteau*

Inventor

By Attorney

*John N. ...*

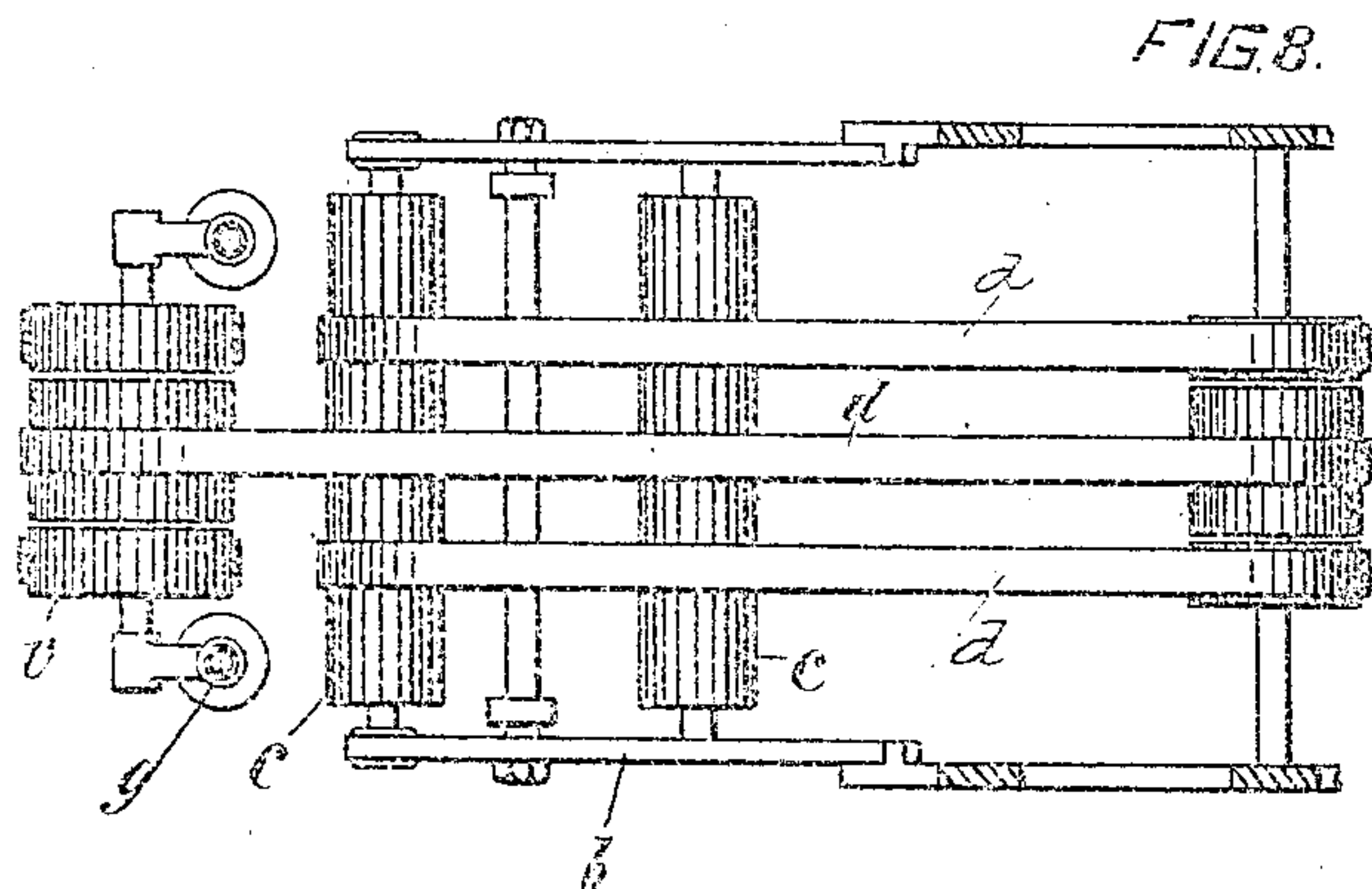
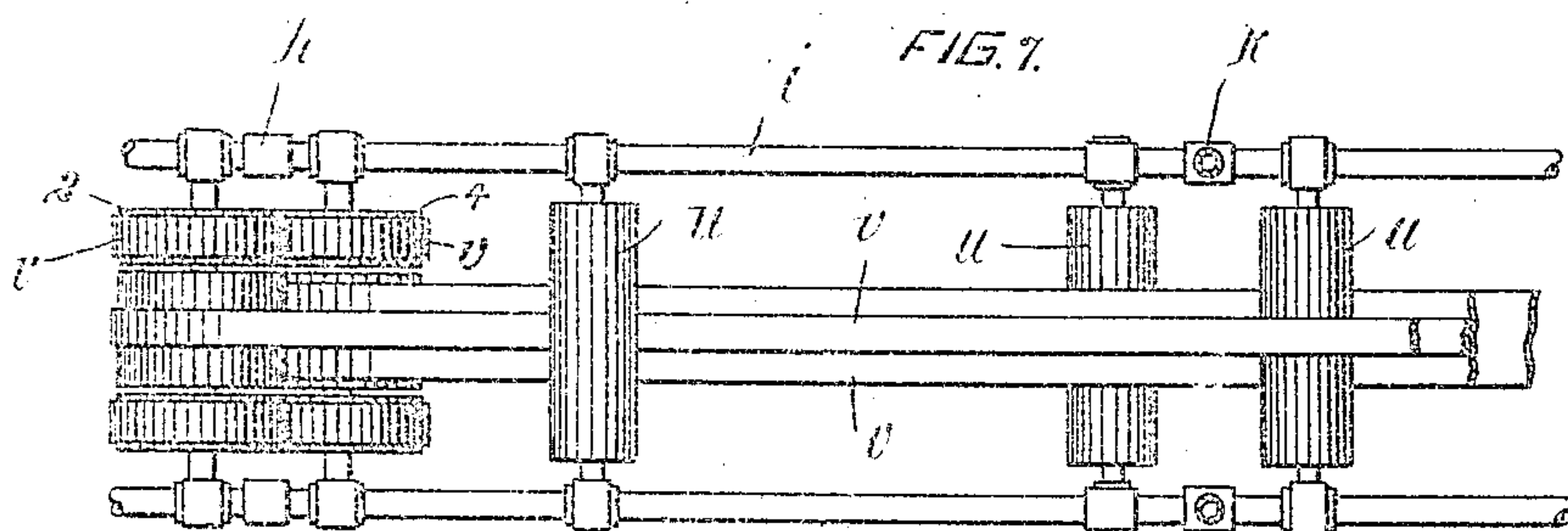
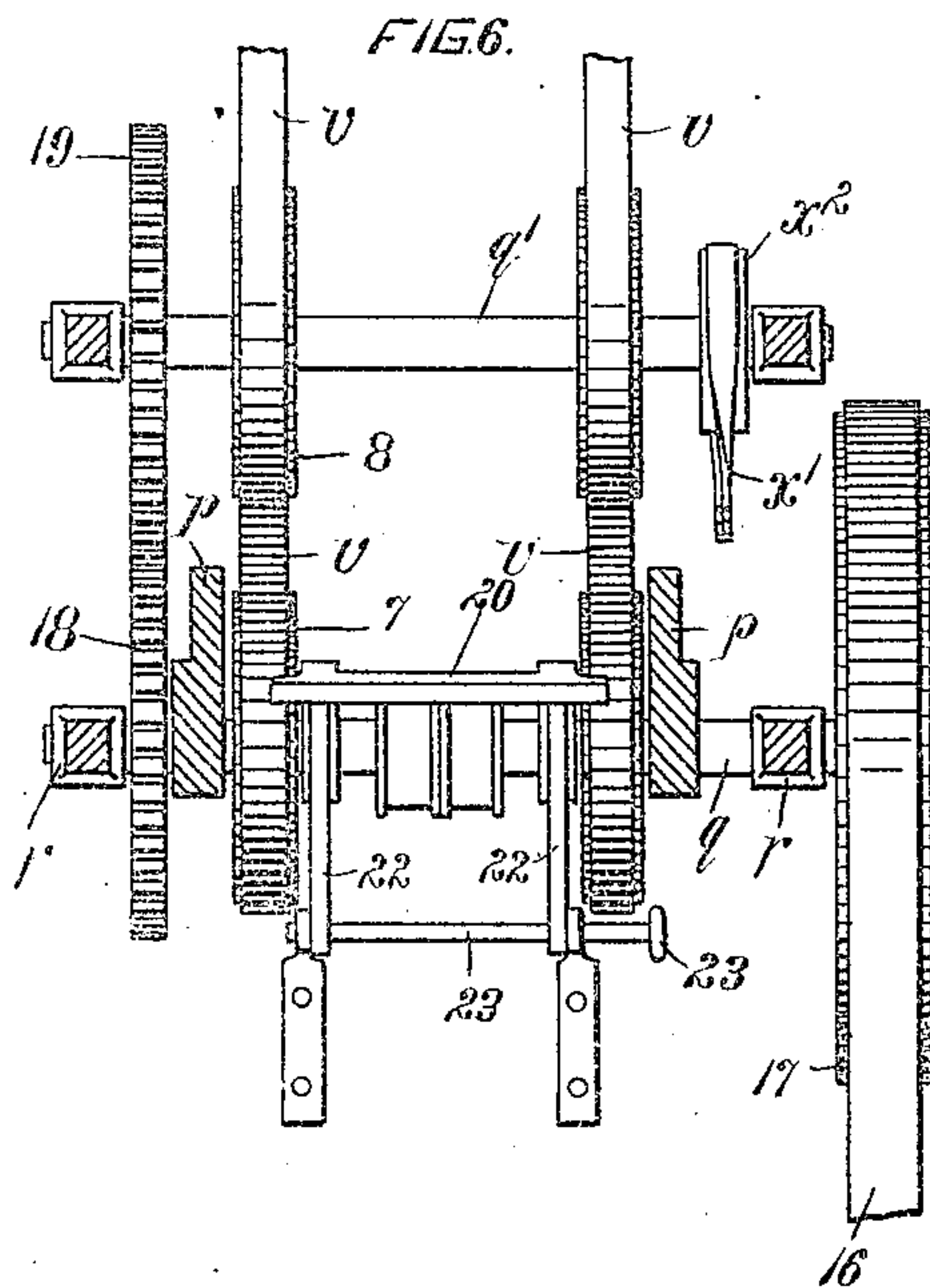
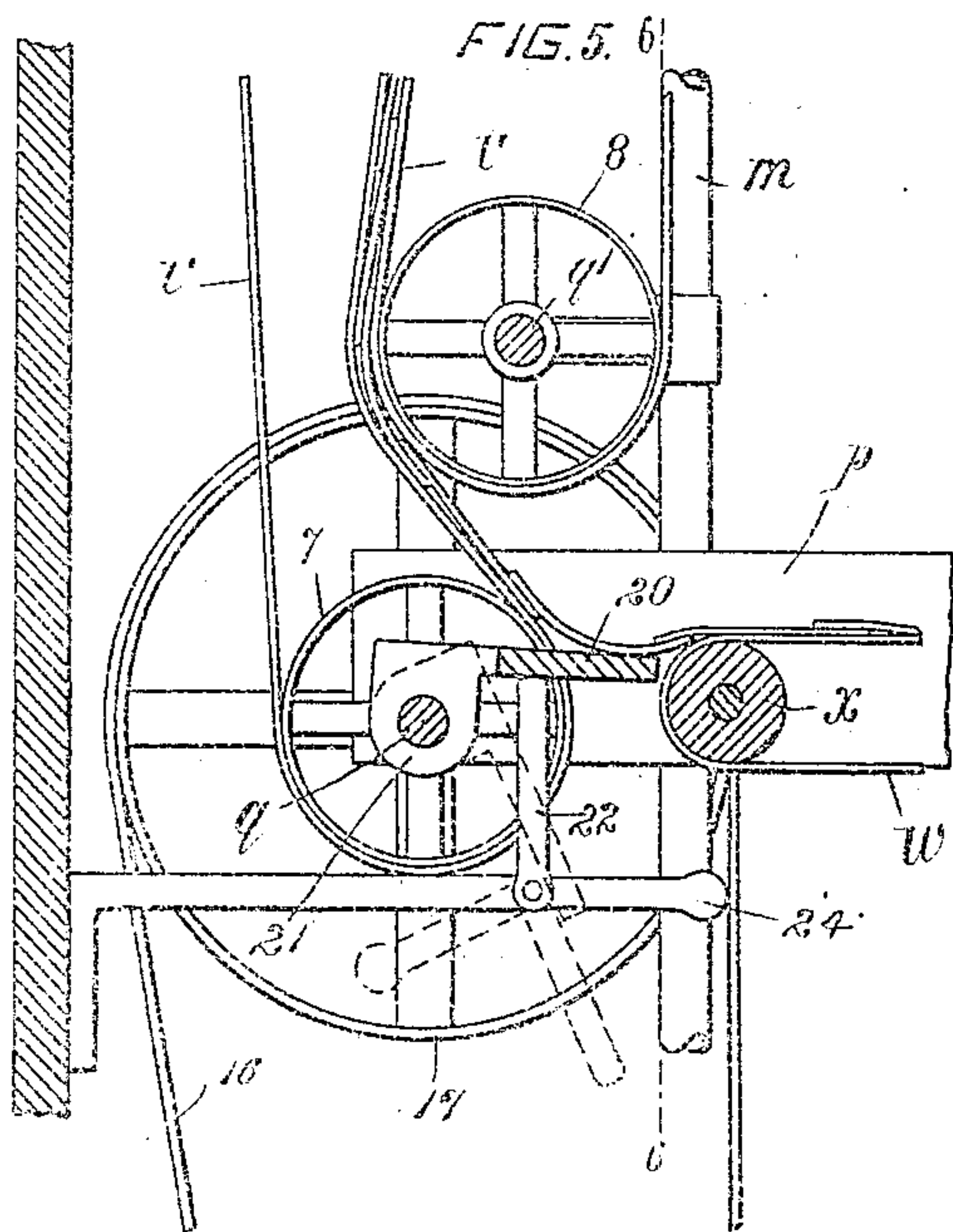
No. 817,842.

PATENTED APR. 17, 1906.

V. FILTEAU.  
CARRIER.

APPLICATION FILED NOV. 27, 1903.

2 SHEETS—SHEET 2.



Witnesses

Alex. C. Brown

*[Signature]*

Victor Filteau

Inventor

By Attorney

*[Signature]*



# UNITED STATES PATENT OFFICE.

VICTOR FILTEAU, OF MONTREAL, CANADA, ASSIGNOR OF ONE-THIRD TO  
THOMAS McLEAY GRAHAM, OF MONTREAL, CANADA.

## CARRIER.

No. 817,842.

Specification of Letters Patent.

Patented April 17, 1906

Application filed November 27, 1903. Serial No. 182,809.

*To all whom it may concern:*

Be it known that I, VICTOR FILTEAU, of the city of Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Carriers; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention has for its object to provide a carrier for use in connection with a newspaper-printing press and adapted to convey the printed and folded newspapers from the press to the distributing-room or other place, and a further object is to cause the newspapers to be automatically stacked.

The invention may be said, briefly, to consist of a traveling carrier and means for causing same to act in conjunction with and at a less speed than the delivery-drum of the press in order to cause the folded newspapers to be lapped one over the other and with the forward end of each above the rear end of that preceding it as they are delivered to the carrier, while the latter is constructed and arranged to have its delivery end travel in an opposite direction to the receiving end for the purpose of delivering the folded newspapers upon a traveling delivery member in reversed order—that is to say, with the forward end of each beneath that preceding it. A rigid stop is located in the path of the newspapers upon the carrier at the point it is required that such newspapers be stacked. The carrier itself preferably consists of a series of members communicating one with another, each of said members being independent of, but receiving the folded newspapers from the member following it in the order of delivery.

For full comprehension, however, of my invention reference must be had to the accompanying drawings, forming a part of this specification, in which similar reference characters indicate the same parts, and wherein—

Figure 1 is a side elevation of my improved carrier with a printing-press indicated in dotted outline. Fig. 2 is an end elevation thereof. Fig. 3 is an enlarged perspective view of the delivery end of my improved carrier. Fig. 4 is a detail perspective view of one of the rollers of my improved carrier with its supporting-bracket. Fig. 5 is a longitudinal sectional view of the portion of the carrier at the junction of the downwardly-traveling

member with the delivery member and illustrating particularly the means for causing the articles to be directed onto the delivery member or allowing them to fall into a receptacle beneath the latter. Fig. 6 is a transverse vertical sectional view taken on line 6-6, Fig. 5. Fig. 7 is a plan view of one end of the intermediate or bridging member, and Fig. 8 is a plan view of the member which receives the article from the press.

My improved carrier comprises a horizontal receiving member consisting of a frame *b* and supporting a series of preferably hard-wood bearing-rollers *c*, which have an endless apron looped thereover, such apron consisting, preferably, of a series of belts *d*. One end of this horizontal member is located beneath the delivery-drum (indicated at *e*) of the press in position to receive the newspapers therefrom. A vertical member is located near the opposite end of the horizontal member and consists of a tubular frame *g*, resting at one end upon the floor and connected by a coupling *h* to the horizontal tubular frame *i* of a bridging member, which extends parallel to and near the ceiling *j* of the press-room, from which it is supported by hanging brackets *k*. A second vertical member consists of a vertical tubular frame *m*, coupled, as at *n*, to the end of the horizontal frame of the bridging member and secured, as at *o*, to the floor of the mailing or distributing room, and a horizontal delivery member communicates with the lower portion of the last-mentioned vertical member and consists of a horizontal frame *p*, supported at one end upon a shaft *q*, supported in turn by bearings *r*, secured to the lower end of such last-mentioned vertical frame, while the opposite end of this horizontal delivery-frame is supported by legs *s* and a rigid vertical stop *t* is secured at the last-mentioned end of the delivery-frame. Each of these frames has a series of alternately oppositely-arranged bearing-brackets *u'*, secured thereto and adapted to support a series of preferably hard-wood bearing-rollers *u*.

The carrier members each have a pair of endless aprons looped around the rollers 1, 2, 3, 4, 5, 6, 7, and 8 and bearing upon the rollers *u* preferably, as shown. The apron of each pair consists, preferably, of one or more belts *v*. The pair of aprons of the first vertical member *g* receive between them the



folded newspapers from the receiving member *b* and convey them to the pair of aprons of the bridging member *i*, which in turn conveys such newspapers to the pair of aprons of the second vertical member *m*, from which they are projected upon the delivery member *p*. In order to allow of the papers being thus delivered from one member to the other, a pair of bearing-rollers 1 and 3 are located adjacent to one another and with the space between them in line with the surface of the receiving member *b*, and a transversely-arranged pair of the bearing-rollers 2 and 4 are located at the junction of the first vertical member and the bridging member and are preferably supported by the latter, while a second transversely-arranged pair of bearing-rollers 5 and 6 are located at the junction of the bridging member and the second vertical member. They are also preferably supported by the frame of the bridging member, and a pair of rollers 7 and 8 are supported by the lower portion of the second member in position to have the space between them located a short distance above the surface of the delivery member *p*.

The endless aprons (each preferably consisting, as before mentioned, of a series of endless belts *v*) are arranged in a series of pairs, the first pair being looped around the rollers 1 and 2 and pressed against 3 and 4, the second pair being looped around the rollers 2 and 5 and 4 and 6, and the third pair being looped around the rollers 6 and 7 and 5 and 8, while the delivery member has an apron consisting of belts *w*, looped over rollers *x*, mounted rotatably in frame *p*. The outer side of each of these aprons extends in a direct line between the rollers 1 and 2 and 3 and 4, and the other side of each extends alternately to opposite sides of the intermediate rollers *u*. This arrangement of the aprons insures the adjacent sides thereof running in constant contact with one another, and a communication between the members is established. Thus, all the aprons are made to travel, causing the folded newspapers delivered by the press upon the receiving member to be transmitted from one member to the other until they are finally projected upon the delivery member.

In order to cause the folded newspapers to be automatically stacked after they have been delivered, I incline the free end of the delivery member and locate a rigid stop at the end of such inclined portion and cause the complete carrier to travel at a sufficiently low speed relatively to the press to insure the delivery by the press of each folded newspaper before the one preceding it has been completely removed by the receiving member of my carrier, thus causing the said newspapers to overlap one another with the hindmost lying upon the rear end of its leader. This stop (indicated at *t*) consists of a pair of

standards bolted or otherwise secured at their ends to a cross-piece 10 at the end of the delivery-frame, such cross-piece being set at right angles to the inclined end portion 12, and therefore projecting diagonally upward. This construction and arrangement causes the delivery end of the carrier to travel in an opposite direction to the receiving end, thereby delivering the folded newspapers upon the delivery member in reversed order—that is to say, with the foremost end of each paper as it travels beneath the rear end of that preceding it—thus enabling the apron upon which it lies to be in frictional contact therewith a sufficient length of time to cause it to be conveyed into contact with the stop.

I prefer to drive my improved carrier independently of the press by any suitable motor, (indicated at 15,) and a reduction-gear 15<sup>a</sup> operated thereby, from which gear a driving-belt 16 is taken to a driving-pulley 17, mounted upon the shaft *q* of roller 7, the rotative movement thus imparted being conveyed to the shaft *q'* of the last vertical member by a pair of intermeshing gears 18 and 19, mounted rigidly upon the shafts *q* *q'*, respectively, and thence throughout the carrier by the aprons, while the rotative movement is transmitted from shaft *q'* to the adjacent roller *x* by a belt *x'*, looped over a pair of rollers *x'*, one upon shaft *q'* and the other upon the trunnion of said end roller *x*.

I provide a device adapted to be moved either to a position to cause the newspapers or other articles being carried to be delivered upon the delivery member or into a receptacle beneath the same. This device consists of a small platform located between roller 7 and the roller adjacent thereto for supporting the apron of the delivery member. Such small platform, which is indicated at 20, is pivoted at one end, as at 21, upon the shaft of roller 7, while its opposite end is supported upon a pair of fingers 22, carried by a rotatable spindle 23, having a handle 24 for rotating the same, thus enabling the platform to be tilted down to its dotted position and the newspapers to be fed through the space between this platform and the adjacent end of the delivery-apron and fall into any suitable receptacle (indicated at 25) or to be caused to guide the newspapers or other articles onto the delivery member. When my carrier is operating with the last-mentioned platform in its elevated position, the newspapers will be conveyed to the rigid stop, and as each newspaper arrives at the stop the one following it will be fed beneath it, and this continues until the newspapers are stacked.

In order to provide means for automatically varying the tension of the carrier, I mount an angular lever 50 pivotally upon a bracket 51, secured to one of the uprights *g* of the first vertical carrying member, and mount a bearing-roller 52 upon the end of the depending



arm of the said lever and mount a weight 53 upon the other arm thereof, thereby causing the portions of the belts *v* having the newspapers between them to bear with  
 5 greater strength upon the newspapers as they are increased in thickness, and consequently increase in weight.

The advantage of driving the carrier independently is that it may be driven for a sufficient time after the press is stopped to deliver into the mail-room all the newspapers printed.

What I claim is as follows:

1. The combination with the delivery-drum of a power-driven newspaper-printing press, of a carrier adapted to carry folded newspapers, such carrier comprising a receiving member with end portion extended beneath said delivery-drum to receive the newspapers in overlapping order with the last delivered uppermost and traveling in one direction, an elevating member traveling in another direction, and a further member traveling in a direction different to the directions of travel  
 25 of the first two members so that the newspapers shall be delivered in reverse overlapping order, and a stop located in the path of the newspapers causing them to be automatically stacked.

2. The combination with the delivery-drum of a power-driven newspaper-printing press, of a carrier adapted to carry folded newspapers such carrier comprising a receiving member with end portion extended beneath said delivery-drum to receive the newspapers in overlapping order with the last delivered uppermost, and traveling in one direction, an elevating member traveling in another direction and a delivery member traveling in a direction opposite to the direction of travel of the receiving member so that the newspapers shall be delivered in reverse overlapping order, and a stop located at the extremity of the delivery against which the  
 45 newspapers are carried for causing them to be automatically stacked.

3. The combination with the delivery mechanism of a printing-press of a traveling carrier having one end communicating with and receiving the printed articles from the said delivery mechanism in overlapping order with the last delivered uppermost and the other end of such carrier traveling in the opposite direction to the first-mentioned end thereof for the purpose of reversing the order of articles in their travel upon the carrier, means adapted to be acted upon by the articles for the purpose of causing the said articles to be automatically stacked, and means  
 60 for causing the carrier to travel independently of the press.

4. The combination with the delivery mechanism of a printing-press of a carrier comprising a pair of longitudinals secured rigidly at their lower ends adjacent to the de-

livery end of the press and extending upwardly, a series of rollers extending between and carried by such longitudinals, a bridging member having one end adjacent to the upper end of the pair of longitudinals, a series of rollers carried thereby, and a second pair of longitudinals secured rigidly at their lower ends adjacent to the point of delivery and having their upper ends located adjacent to the opposite end of the bridging member, a series of rollers extending between and carried by the last-mentioned longitudinals, the rollers at the opposite ends of the bridging member constituting the upper end rollers of the first and last mentioned series of rollers, a pair of coating endless aprons looped over the rollers of the first-mentioned series and over the rollers common to such series and to the series in the bridging member, a second pair of endless aprons looped over the rollers in the bridging member and over the rollers common to the first and last mentioned series, and a third pair of endless aprons looped over the rollers of the last-mentioned series and over the rollers common to such series and to the series of the bridging member, for the purpose of causing the said pairs of aprons to deliver the printed article from one to another.

5. The combination with the delivery mechanism of a printing-press, of a carrier consisting of a receiving member receiving the printed articles from the press in overlapping order the last received lying uppermost, a delivery member, and an intermediate member between such receiving and delivery members; the receiving member conveying the printed articles, in the same order as received from the delivery mechanism of the press, to the intermediate member, the intermediate member conveying such articles from the receiving member to the delivery member in overlapping order the reverse of that in which they were received from the receiving member, and the delivery member conveying such articles in their reversed order to the point of delivery, and a rigid stop located in the path of the articles being conveyed by such delivery member, to arrest such articles while they are still supported by the delivery member, for the purpose set forth.

6. The combination with the delivery mechanism of a printing-press, of a carrier adapted to receive from the press the articles printed thereby, such carrier consisting of a series of members communicating one with another and arranged in different angular positions, such series of members comprising a pair of rollers located a short distance apart and supported at one end of such series, a second pair of rollers located at the point of juncture of the first and second members, a third pair of rollers arranged a short distance apart and supported at the point of juncture



of the second and third members, a fourth pair of rollers arranged a short distance apart and supported near the opposite end of the series, a pair of endless aprons looped over the rollers of the first and second pairs with one side of each bearing upon one another, a second pair of endless aprons looped over the rollers of the second and third mentioned pairs, and a third pair of endless aprons looped over the rollers of the third and fourth mentioned pairs, a delivery member consisting of a series of rollers having an endless apron looped thereover and presenting a horizontal surface adapted to receive articles dropped thereon, and means located in the path of the printed articles carried by and moving with the said apron of the said delivery member such means being adapted to have the articles come in contact therewith and be stopped thereby while they are still upon the carrier, substantially as described and for the purpose set forth.

7. The combination with the delivery mechanism of a printing-press, of a carrier adapted to receive from the press the articles printed thereby, such carrier consisting of a series of members communicating one with the other such series comprising a receiving member located in position to receive the printed articles as they are delivered by the press, a delivery member, and a series of intermediate members arranged in different angular positions, a pair of rollers located at the point of juncture of the receiving member and the first intermediate member, such pair of rollers being arranged a short distance apart, a second pair of rollers arranged a short distance apart and supported at the point of juncture of the intermediate member last mentioned with the intermediate member adjoining the same, a third pair of rollers arranged a short distance apart and supported at the point of juncture of the last-mentioned intermediate member with the delivery member, a pair of bearing-rollers mounted in the receiving member one near each end thereof, a pair of bearing-rollers supported in the delivery member and located one near each end thereof, a pair of endless aprons looped over

the rollers of the first and second pair with one side of each in bearing relation with one another, a second pair of endless aprons looped over the rollers of the second and third mentioned pairs, and a third pair of endless aprons looped over the rollers of the third and fourth mentioned pair, an endless apron looped over the rollers of the receiving member and presenting a horizontal surface adapted to receive articles dropped thereon, an endless apron looped over the rollers of the delivery member and presenting a horizontal surface adapted to receive articles dropped thereon, and stationary means located in the path of the printed articles carried by and moving with the apron of the said delivery member in position to have the articles come in contact therewith and be stopped thereby while they are still upon the carrier, substantially as described and for the purpose set forth.

8. The combination with the delivery-drum of a printing-press, of a carrier adapted to carry folded newspapers, such carrier comprising a traveling receiving member, with end portion extended beneath said delivery-drum, a second traveling member adapted to carry said newspapers from said receiving member, and a traveling delivery member, said second traveling member and said delivery member being disposed a short distance apart and said second traveling member having an operating-shaft, a movable platform located across the space between said second and delivery members and pivoted to said operating-shaft and adapted to, at times, guide the newspapers being carried and cause the same to be transmitted from the second member to the delivery member, and means for displacing such movable platform to, at other times, allow the newspapers being carried to fall through such space, for the purpose set forth.

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

VICTOR FILTEAU.

Witnesses:

WILLIAM P. McFEAT,  
FRED J. SEARS.