

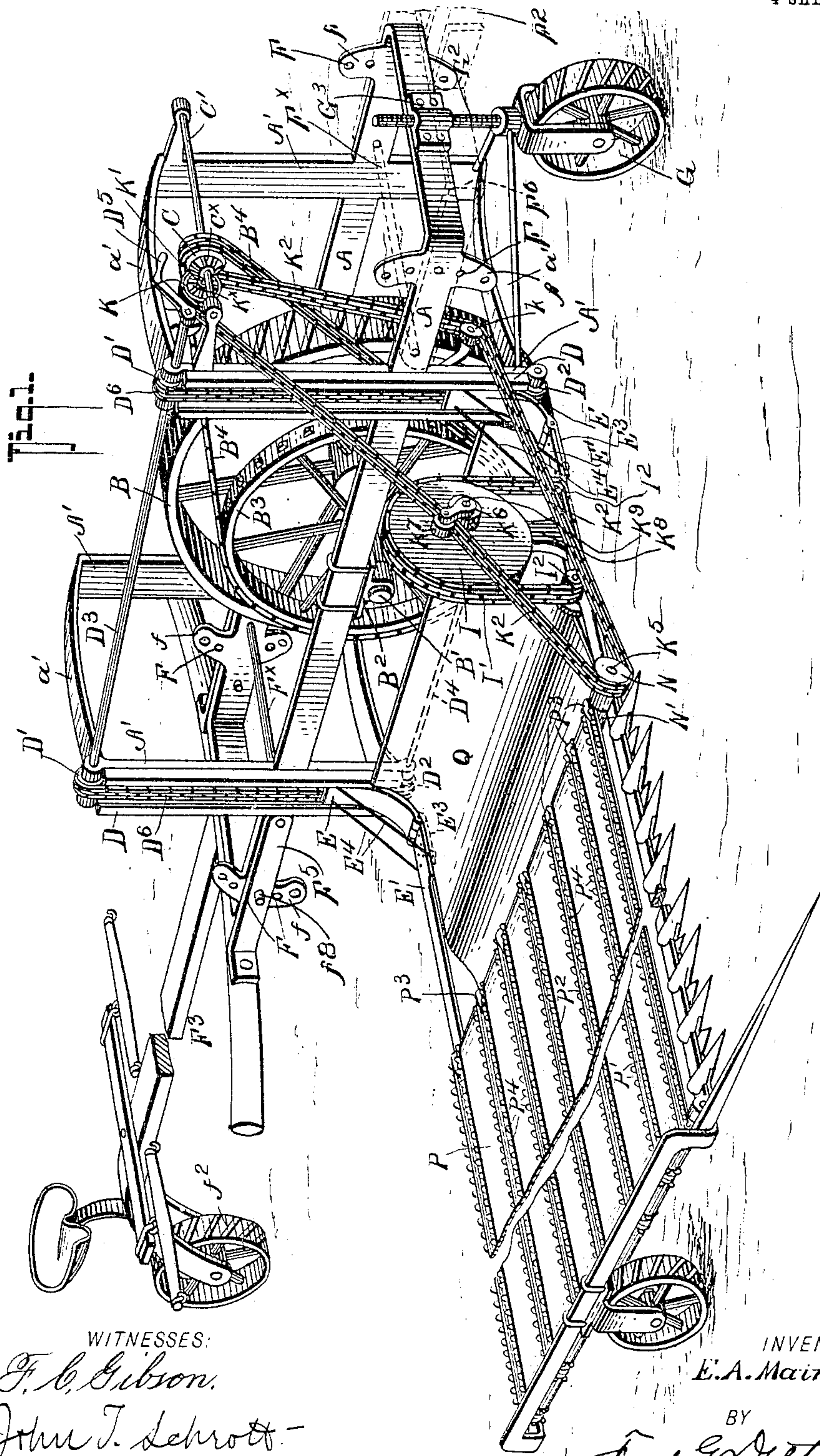
No. 799,249.

PATENTED SEPT. 12, 1905.

E. A. MAINGUET.
HARVESTER.

APPLICATION FILED JULY 30, 1903. RENEWED JULY 10, 1905.

4 SHEETS—SHEET 1.



WITNESSES:

F. C. Gibson.

John T. Schrott.

INVENTOR

E. A. Mainguet.

BY

Fred Goetters

ATTORNEYS.

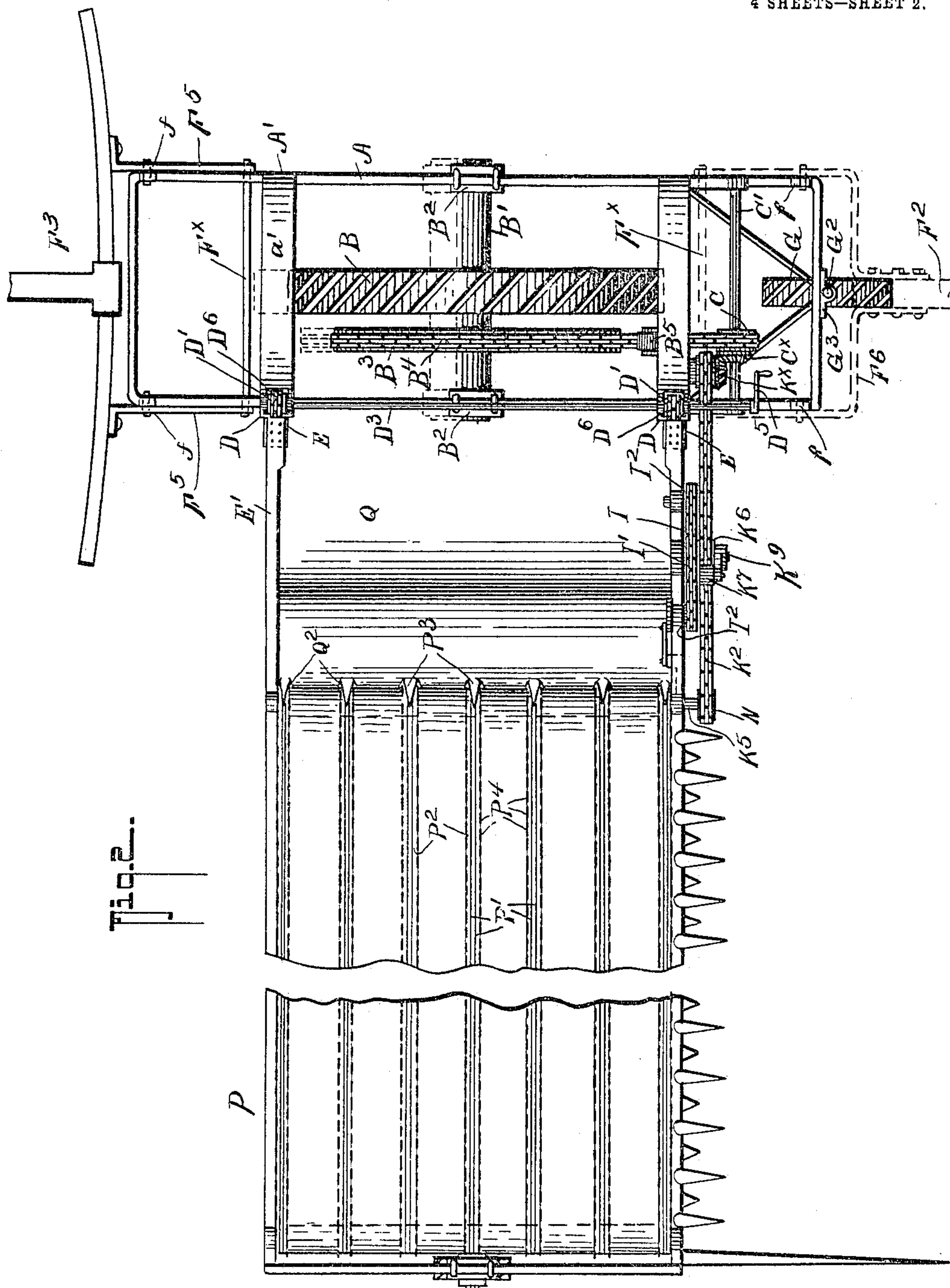
No. 799,249.

PATENTED SEPT. 12, 1905.

E. A. MAINGUET.
HARVESTER.

APPLICATION FILED JULY 30, 1903. RENEWED JULY 10, 1905.

4 SHEETS—SHEET 2.



WITNESSES:
F. C. Gibson.
John T. Schrott

INVENTOR
E. A. Mainquet.

BY
Fred G. Dietrich & Co.
ATTORNEYS.

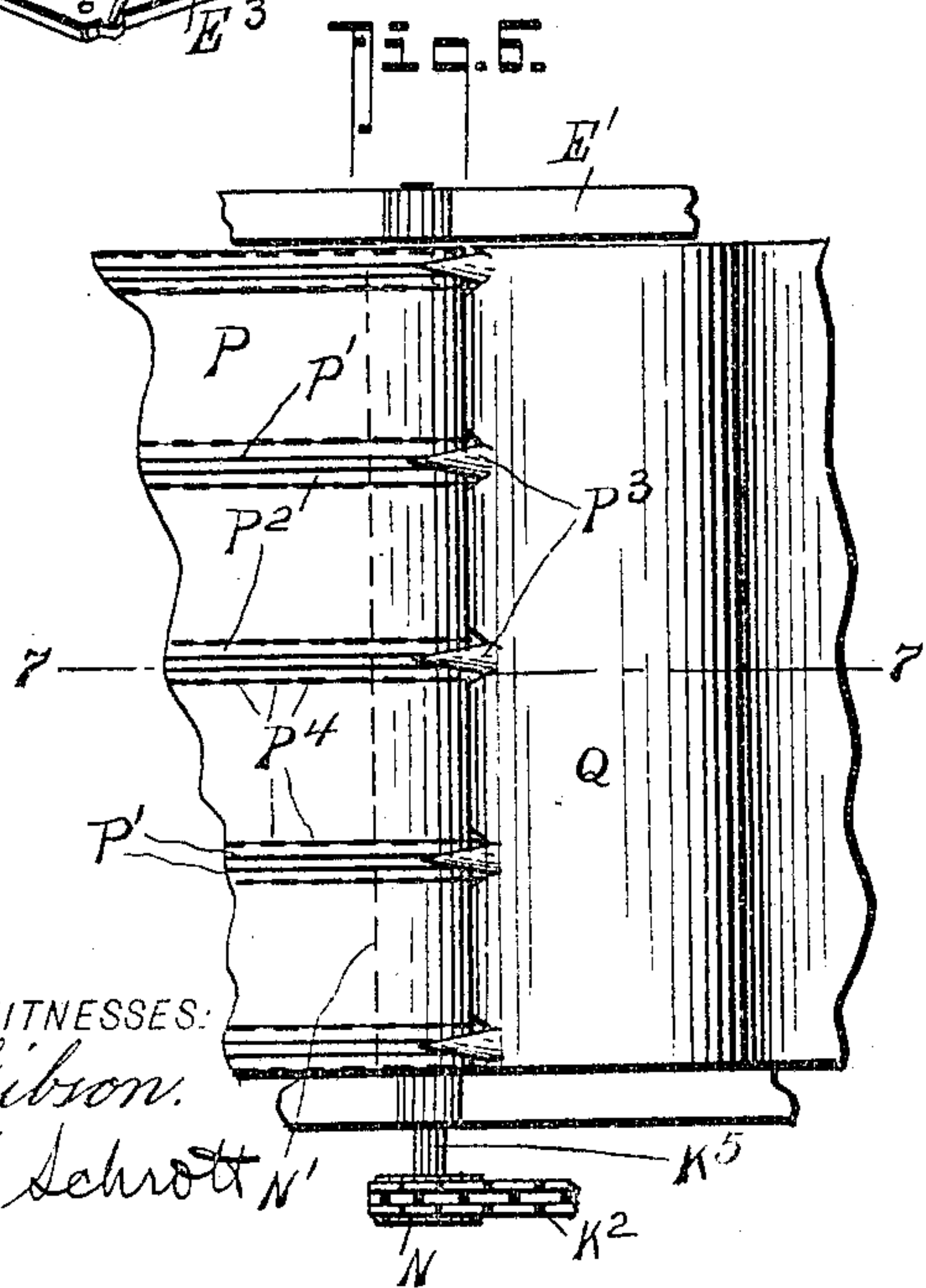
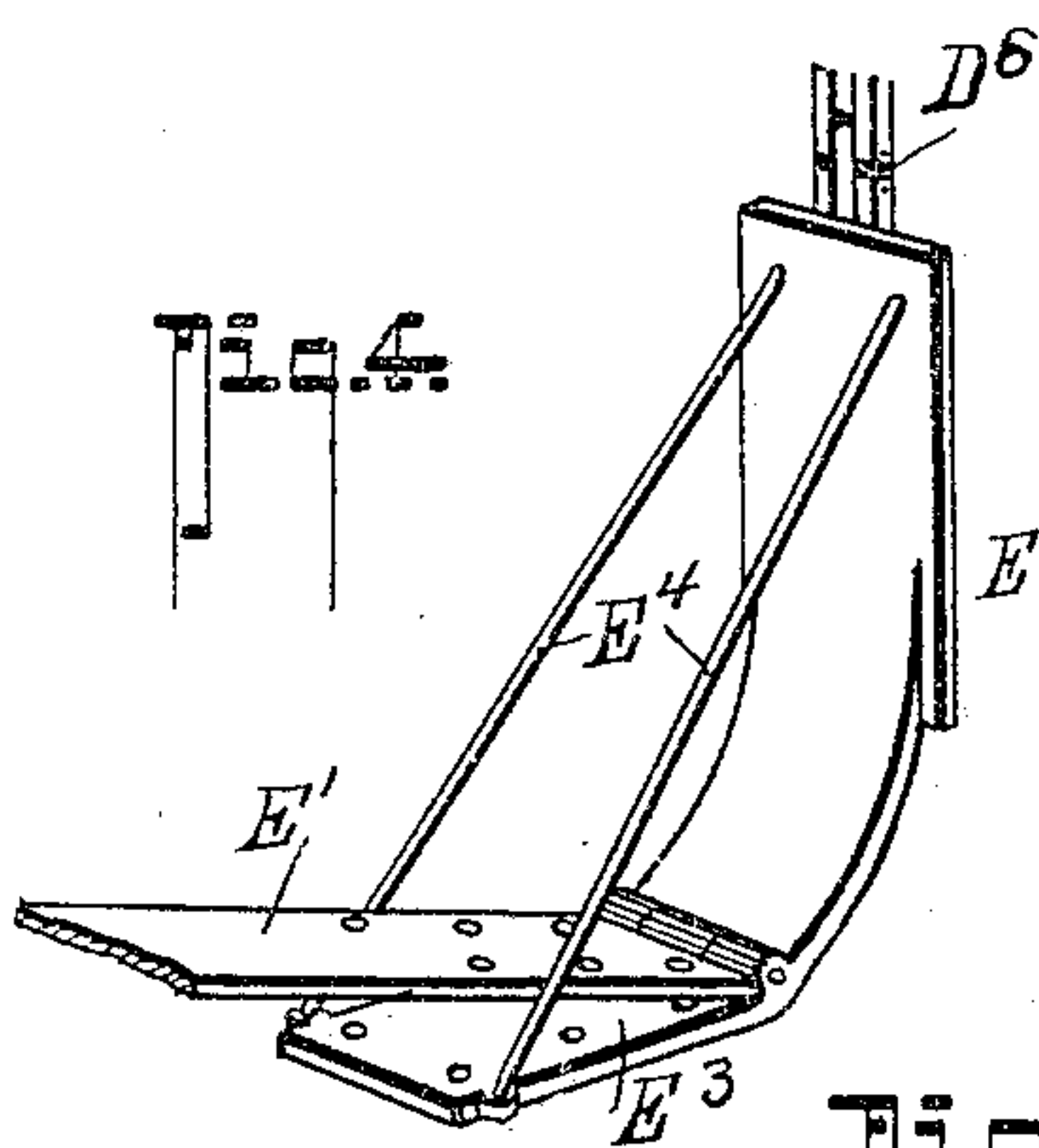
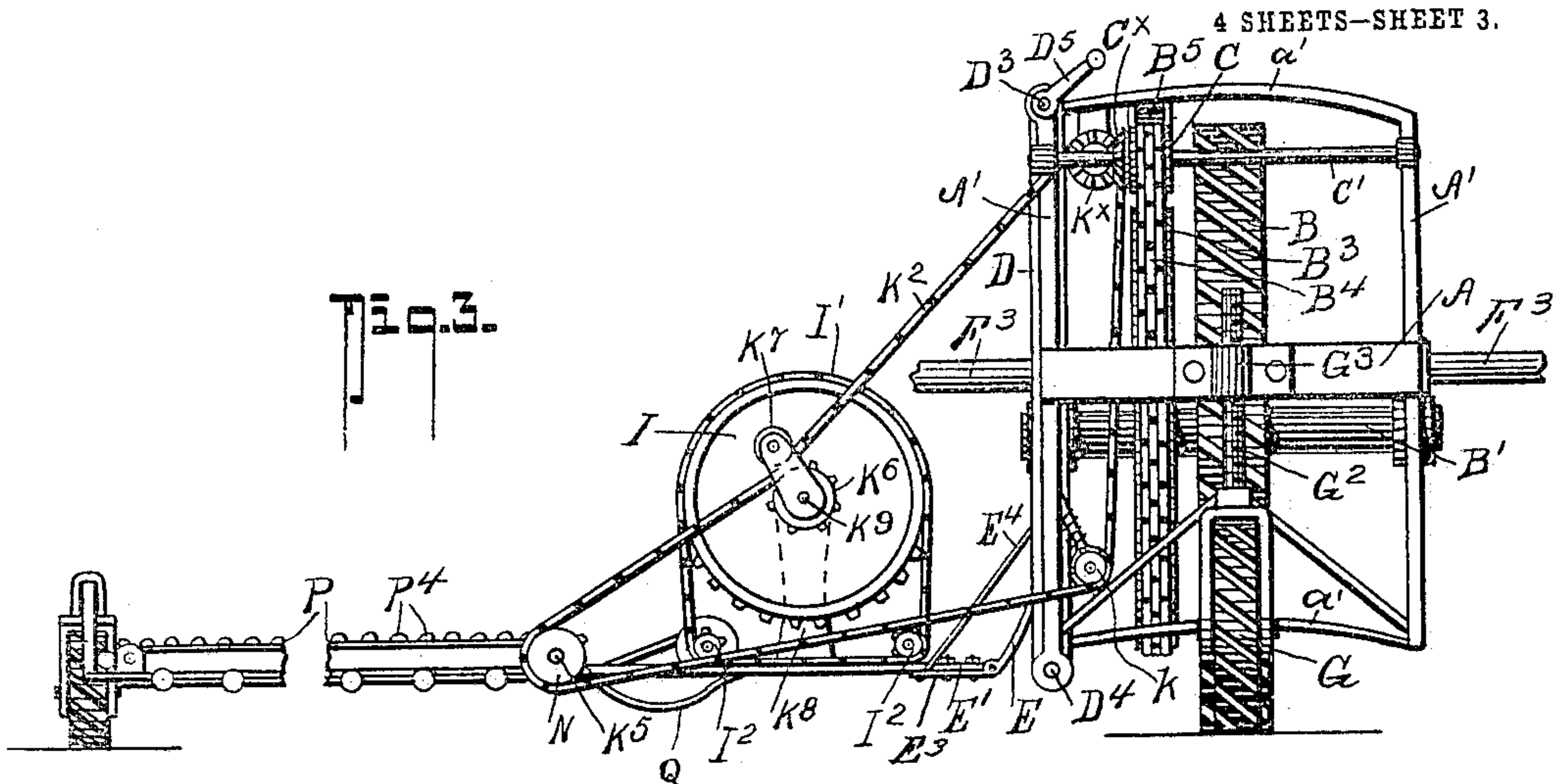
No. 799,249.

PATENTED SEPT. 12, 1905.

E. A. MAINGUET.
HARVESTER.

APPLICATION FILED JULY 30, 1903. RENEWED JULY 10, 1905.

4 SHEETS—SHEET 3.



WITNESSES:
F. C. Gibson.
John T. Schrott

INVENTOR
E. A. Mainquet

BY
Fred G. Dietrich
ATTORNEYS.

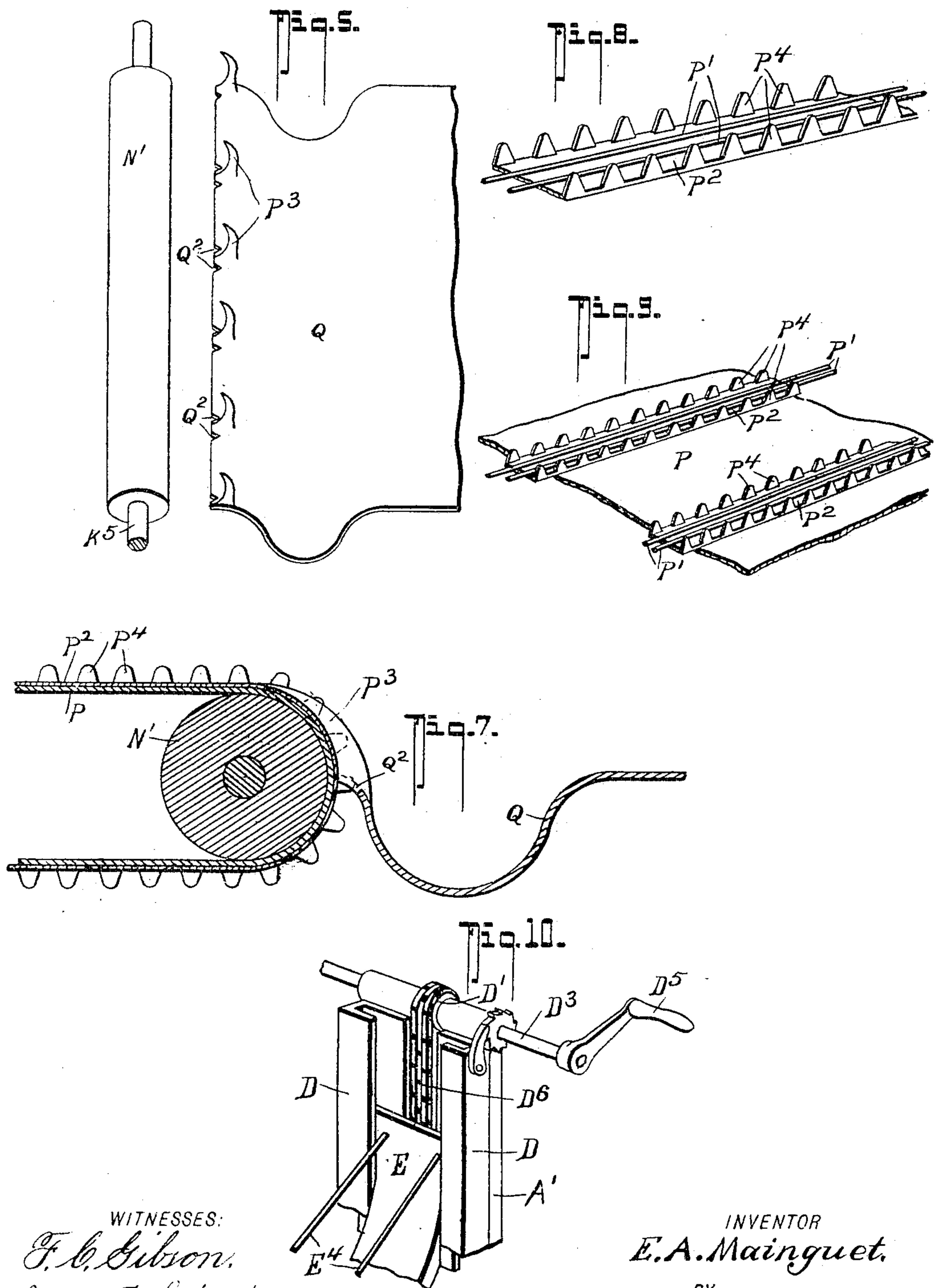
No. 799,249.

PATENTED SEPT. 12, 1905.

E. A. MAINGUET.
HARVESTER.

APPLICATION FILED JULY 30, 1903. RENEWED JULY 10, 1905.

4 SHEETS—SHEET 4.



WITNESSES:
F. C. Gibson.
John T. Schrott

INVENTOR
E. A. Mainguet.
BY
Fred G. Dietrich
ATTORNEYS.

UNITED STATES PATENT OFFICE.

EDWARD A. MAINGUET, OF EVANGELINE, LOUISIANA.

HARVESTER.

No. 799,249

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed July 30, 1903. Renewed July 10, 1905. Serial No. 269,133.

To all whom it may concern:

Be it known that I, EDWARD A. MAINGUET, residing at Evangeline, in the parish of Acadia and State of Louisiana, have invented a new and Improved Harvester, of which the following is a specification.

My present invention seeks to provide a new and improved harvester in which the co-operative parts thereof are especially designed and correlatively arranged whereby the same can be readily adjusted to operate as an ordinary self-binder, as a mower by detaching the grain-platform, the packing and binding portions thereof, and as a header, and in which the several parts involve a simple compact structure capable of being economically made and which will effectively serve for its intended purposes.

In its generic nature my present invention comprehends a master-wheel which sustains the main frame and the operating parts, which include vertical adjustable supports to which and to the main frame the actuating parts are foldably connected in a peculiar manner, whereby the entire machine can be conveniently propelled in either direction and be easily transported.

In its subordinate features my invention includes certain details of construction and novel combination and coöperative arrangement of parts, all of which will hereinafter be fully explained, and specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view illustrating my harvesting-machine in its most complete form. Fig. 2 is a top plan view thereof. Fig. 3 is a front elevation of the same. Fig. 4 is a detail view of one of the slide-plates E, hereinafter referred to. Fig. 5 is a detail view of a portion of the binder and packer platform and the roller N' that coöperates therewith. Fig. 6 is a detail plan view of the apron at its point of connection with the binder or packer platform or table. Fig. 7 is a detail cross-section of the parts shown in Figs. 5 and 6, taken on the lines 7 7 of Fig. 6. Fig. 8 is a detail perspective view of a portion of the band that covers the aprons. Fig. 9 is a similar view of the apron with the band applied. Fig. 10 is a detail view showing the slide-plate guide and chain.

In the practical application of my invention I utilize a rectangular frame A, provided at points near the front and rear ends with vertical portions A', extended above and below

the main-frame portion A and which are joined at the top and bottom by arched cross members a' a', which portions A' by reason of their similarity of construction facilitate the plurality of uses for which my present invention is intended, as well as serving as brace and supporting means, in a manner presently explained.

B' designates the main axle, disposed transversely with respect to the main frame A. To permit of a displacement of the axle B' and in consequence the center of gravity of the entire machine, the said axle has its opposite ends journaled in box portions B², which are clipped to the side bars of the frame A to permit of readily setting them forward or backward upon the said side bars to suit the requirements of the different arrangements of my machine.

B designates the combined propelling and supporting or master wheel, which is mounted on the shaft B' at a point between the said bars of the frame A, (see Fig. 3,) and to one side of the said wheel and fixedly connected to the shaft B' is the main sprocket-wheel B³, over which takes a sprocket-chain B⁴, which is held tight by the pressure or tension wheel B⁵, (see Fig. 2,) and the said chain B⁴ passes forward over and transmits motion to a sprocket-wheel C, which is mounted on a cross-shaft C', supported in bearings secured to the upper cross-head a' of the forward and vertical members A'.

As is clearly shown in Figs. 1 and 10, to each of the vertical members A' at the main sprocket-wheel side is fixedly secured a slide-way D D, and each of the said slideways at its lower end has a roller D², and the said rollers D² are mounted on a single shaft D⁴, that extends from one slideway D to the other. Two rollers D' D', mounted upon a single shaft D³, are located at the upper end of the slideways D, and the several sets of rollers D' D² serve as chain-rollers to coact with the endless chains D⁶ D⁶, the function of which will presently appear and which are moved at will by the crank-handle D⁵ on the upper shaft D³.

In each slideway D is held for vertical reciprocation a slide-plate E, and the said plates E are attached to their respective chains D⁶ and moved up and down on the ways D by the shifting of the said chains, whereby to set the machine at the position desired, and by reason of their vertical adjustment the machine can be set high or low, and in the prac-

tical arrangement of my invention the said plates E can be held to their vertically-adjusted positions by any desired means—for example, a pawl-and-ratchet device (see Fig. 5 10) for coöperating with the shaft D³. Each slide member E includes a hinged bar E', adapted to assume a horizontal position when lowered. (See Figs. 1 and 3.)

The operating parts of the machine, hereinafter more specifically defined, are bolted to the bars E' to move therewith, but in such manner that they can be conveniently detached from the said bars E' when necessary.

In the operative condition of the several parts the bars E' are firmly bolted to bottom plates E³, integral with and projected at right angles from the plates E and braced by stay-rods E⁴ E⁴, as it is shown in Fig. 4.

By reason of the hinged connection between the supporting portions E' and the slide members E when the operating parts are attached thereto they can readily be swung in the arc of a circle having as its center the axis of the hinge-joint to allow of the free end of the apron P being swung toward or from the ground.

To provide for a proper inclination of the machine, the ends of the frame A have integrally-formed segmental extensions f', provided with a series of concentrically-arranged apertures F, arranged concentrically with the bolts or cross-rods F^x, mounted in the front and the rear ends of the frame A, and to the rear bolt F^x the bifurcated ends F⁵ of the pusher-frame F³ are secured, which frame includes a doubletree and the caster-wheel f², as clearly shown in Fig. 1, and the said bifurcated ends are held from movement by means of pins f⁸, which pass through the apertures of the bifurcated arms F⁵ into the apertures F of the segmental extensions f'. (See Fig. 1.)

If it is desired to pull the machine instead of pushing it, I attach a tongue F², as shown in dotted lines in Figs. 1 and 2, and when such tongue is used I attach it by means of a bifurcated end F⁶ of like construction as the bifurcated end F⁵ of the pusher-frame F³.

By connecting the front or rear propelling devices with the main frame in the manner shown and described it is obvious that any desired horizontal inclination of the machine may be effected in a convenient and expeditious manner by means of extensions f'.

G designates a caster-wheel mounted in the lower end of the standard G², connected to the front end of the frame A and vertically adjustable upon the said frame to provide for a proper adjustment thereof with respect to the frame A according to the tilt or inclination of the said frame, and when conveniently connected to the front (or back) of the frame the said wheel G serves to support the front end of the machine and relieve the propelling power of any undue weight. Another and important advantage in providing a caster-

wheel supported as shown is that it can be secured to the other end of the machine in any well-known manner and act as a rear supporting-wheel, and thereby renders the said machine easily transportable from place to place, it being also understood that when the front propeller or draft means are used the rear draft devices may be omitted, and in this case the caster-wheel can be set at the rear and form the second supporting-wheel.

If desired, both the front and the rear propeller means may be utilized together, in which condition the caster-wheel will be omitted.

To effect a quick vertical adjustment of the wheel G, its shank or standard G² is threaded to engage a threaded box G³ on the front or rear end of the frame A.

By referring now to Figs. 1 and 3 it will be noticed the wheel C has a bevel-gear face C^x, which meshes with the bevel-gear rim K^x of the sprocket-wheel K, disposed in the transverse plane of the machine on the shaft K', mounted in suitable bearings, and the said wheel K transmits motion through the chain K², which takes around the wheel K and tension-wheel L and runs also a sprocket-wheel N, mounted on the shaft K⁵ at the end of the roller N', around which passes the apron which forms a part of the grain-platform. The chain K³ is also utilized to impart motion to the chain-wheel K⁶, mounted on the shaft K⁹, journaled on the standard K⁸, projected up from and secured to the frame member E'. K⁷ indicates a guide-roller for keeping the chain K² in mesh with the wheel K⁶. On the shaft K⁹ is also mounted what I term a "big-speed" sprocket-wheel I, which is also utilized as a balance-wheel and to impart, through the medium of the endless chain I' and the gears I², a high-speed action to the cutting apparatus and also the packer and the binding appliances. (Not shown.)

When used for imparting motion to the cutting apparatus, a sickle-bar may be joined with one or both of the gears I² I² by a pitman or link connection of any well-known type.

The apron P, which receives the grain and straw in my present invention, is of a light but tough material, on which is fixedly mounted a plurality of wires P', that extend lengthwise of the apron and which are held upon the apron-surface with a series of metallic bands P², having upturned projections P⁴, which act as gatherers and conveyers for carrying the straw and grain forward with the apron P. Then the bands are connected to the apron in any well-known manner. The wires P' will act as guides for the claw-fingers P³, presently again referred to. The projections P⁴ upon the apron P are shaped to hold the grain as it falls onto the apron in the initiative receiving position and to properly discharge the same onto the packer-table and by reason

of the manner in which the bands with their projections are disposed on the apron P for facilitating the conveying of the grain and the taking of the bands with the projections P¹ around the roller N' without undue strain or friction. So far as described in operation the apron P in its course brings the grain toward and over the roller N', where it will be caught by the projections P³, which have such position as to pass between the guides or wires P' of the bands P². They also being arranged to press slightly upon the bands P² and forming a part integral of the packer-table Q will prevent the escape of grain which is caused to fall onto the platform Q. The packer and binder table or bed is formed of a metal body properly shaped to facilitate the action of the several parts mounted thereon, and the front edge of the said bed is sharp and held sufficiently close to the apron P to avoid an opening between the said apron and the said metal body except at the V-shaped cut-out portions Q², which are provided in the body Q to permit of a free passage of the projections P¹ on the bands P² over the adjacent face of the platform Q. By such disposition of parts as described no grain can escape or pass between the apron P and the platform Q.

From the foregoing description, taken in connection with the accompanying drawings, it is believed that the complete operation and the advantages of my invention will be readily apparent.

It will be noticed that by providing a separate frame constructed as stated the supporting mechanism that carries the platform, the sickle, the binder, and reel devices can be easily adjusted to the positions desired and readily swung up to a vertical plane when it is desired to transport the machine to another place.

I desire it understood that I do not limit myself to the precise construction and arrangement of parts herein set forth, since slight changes in the arrangement and construction of parts may be made without departing from the spirit of my invention.

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

1. In a harvester of the character described; a combined supporting and transporting frame, a master drive-wheel mounted on said frame, a supplemental supporting-wheel connected with one end of the frame, said frame including vertical guides and segmental portions at the opposite ends, a draft device detachably connectible with the opposite end of the frame, a supplemental frame adapted to sustain the operating mechanism, said supplemental frame being mounted on the vertical guides of the main frame, means for mounting the said supplemental frame on the said vertical guides for vertical adjustment, drive-gearing mounted upon the main frame, said gearing including power-transmitting de-

vices adapted to be coupled with and to drive the operating mechanism mounted on the supplemental frame, as set forth.

2. In a harvester of the character described; a main frame comprising a rectangular horizontally-disposed body, a caster-wheel support, a drive means joined with the said body, a supplemental frame for carrying the operating parts of the harvester vertically adjustable on one side of the horizontal frame-body, a master-wheel whose axle is mounted upon and shiftable in the longitudinal plane of the rectangular body, a drive-gear mechanism driven from the master-wheel shaft including a power-transmitting gear adapted to be coupled with the drive-gearing of the operating mechanism carried by the supplemental frame.

3. In a harvester as described, the combination with a rectangular frame A, and a wheel support therefor, of an operating mechanism which includes the cutter devices, means for supporting said operating mechanism in a plane parallel to the frame A and at one side of the frame A, and a main drive-wheel and bearing for the drive-wheel mounted upon and having longitudinal adjustment on the frame A.

4. In a harvester as described, the combination with the main frame A, which consists of a rectangular body having vertical extensions at the ends joined by cross members *a' a'* at the top and bottom, a drive-wheel journaled on the said rectangular body, slides mounted on the rectangular frame extensions at one side, means mounted on the frame for adjusting the slides to different heights, said slides including members adapted to support the operating parts of the harvester, drive-gearing mounted on the frame driven from the main wheel and including a power-transmitting wheel adapted to be coupled with and actuating the operating parts of the harvester, a caster-wheel support and draft devices for the frame, as set forth.

5. In a machine as described, the combination with the rectangular frame A having vertical extensions A', the wheel B mounted on the said frame A adjustable longitudinally with respect to the said frame, the slides E vertically adjustable on the end extensions A' of the frame, said slides including horizontally-projected members, supplemental hinged members adapted to be rigidly secured to the said horizontal members, means mounted on the frame for elevating the slides, the said hinged members being adapted to support the operating parts of the machine, drive-gearing actuated from the main wheel B including a transmitting-wheel adapted to be coupled with the actuating-gears for the operating parts carried by the hinged members of the slides, as set forth.

6. The combination in a machine as described, a main drive-wheel, a supporting-

frame rockably mounted thereon and having longitudinal adjustment with respect to the said wheel, a caster-wheel support for the main frame and having vertical adjustment
5 thereon, a supplemental frame for the operating parts pendently supported from the main frame, means for moving said supplemental frame vertically with respect to the main frame, said means including a crank-
10 actuating shaft, and endless chains mounted on the main frame connected to the supplemental frame and means for actuating the said chains, for the purposes specified.

7. In a harvester as described, in combination with a main frame A, a drive-wheel B
15 mounted thereon, slides E vertically adjustable on the frame A, said slides including horizontally-extended members E', drive-gearing

mounted on the main frame including transmitting-gear C actuated from the drive-wheel 20 B; of a standard K⁸ mounted on the slide member E', the shaft K⁹ mounted on the upper end of said standard, the chain-gear K⁶ and speed-gear I mounted on the shaft K⁹, the gears I² mounted on the slide member E', 25 the gear N, the drive-gear mounted on the main frame held in mesh with the gear C, the endless chain K² which takes around the gears K, N and K⁶ and the endless chain I' which takes around the gears I, I², I² all being arranged substantially as shown and described. 30

EDWARD A. MAINGUET.

Witnesses:

W. H. ADAMS,

C. R. CLINE.