

**No. 688,167.**

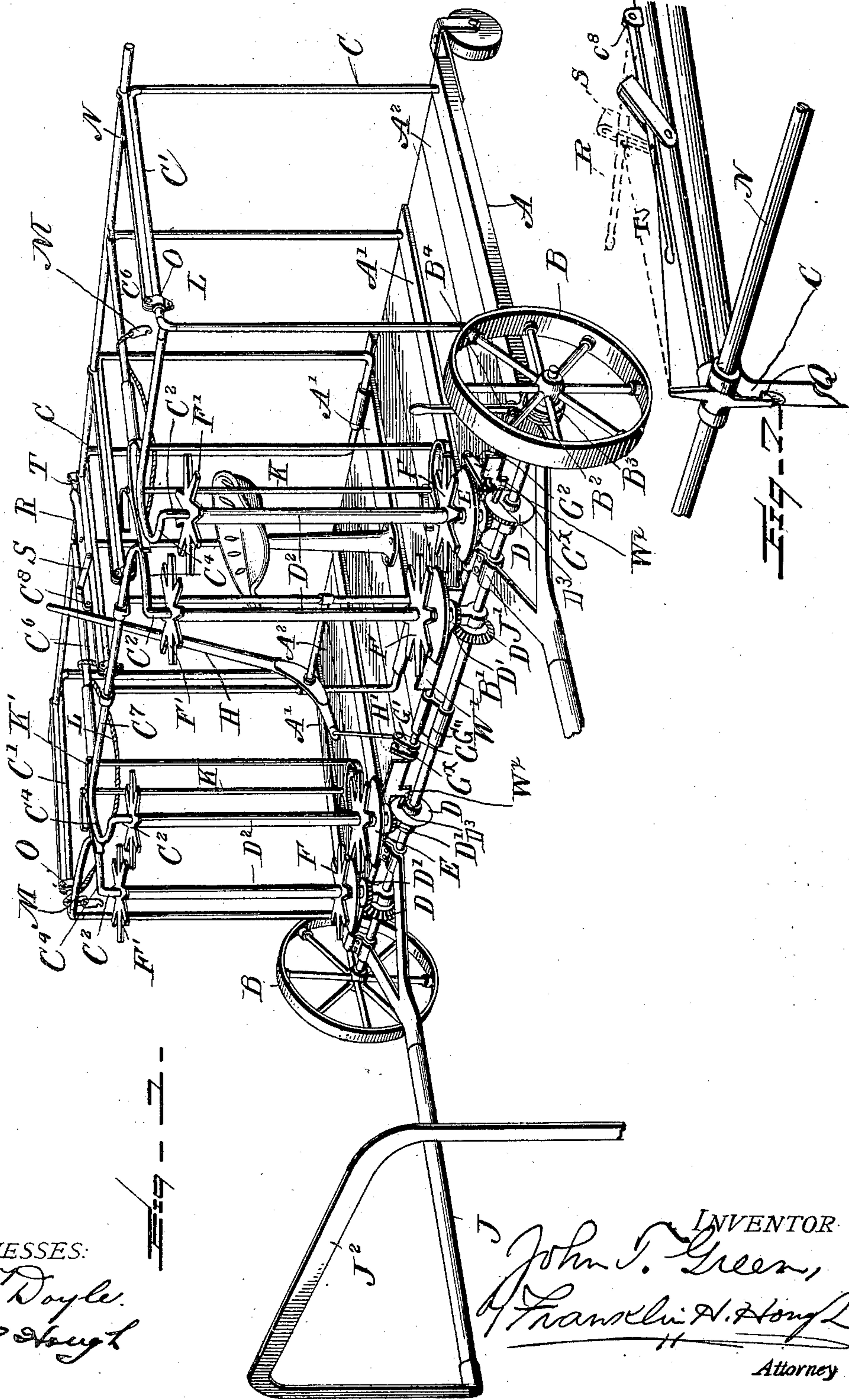
**Patented Dec. 3, 1901.**

**J. T. GREEN.**  
**CORN HARVESTER.**

(Application filed Mar. 11, 1901.)

(No Model.)

**4 Sheets—Sheet 1.**



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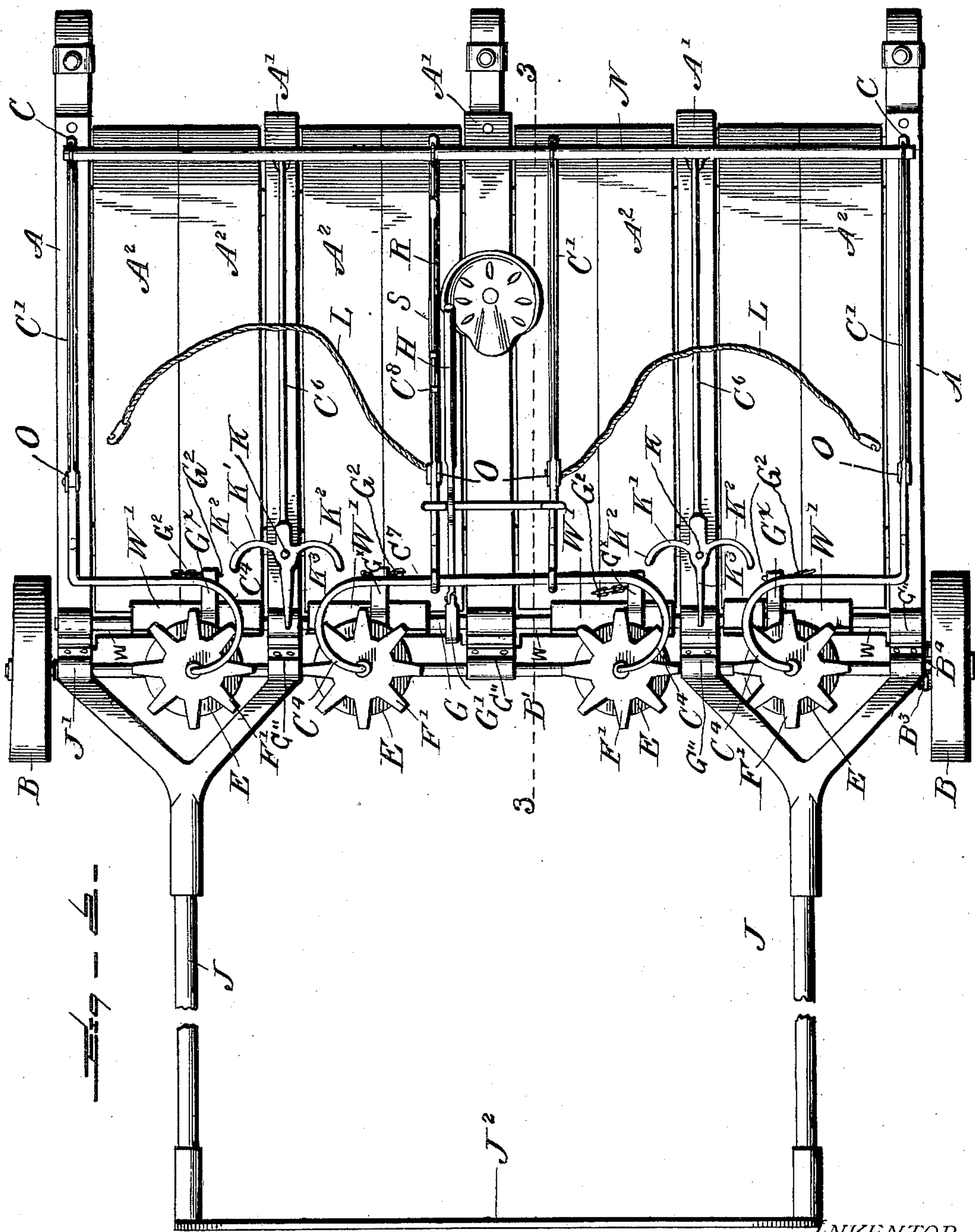
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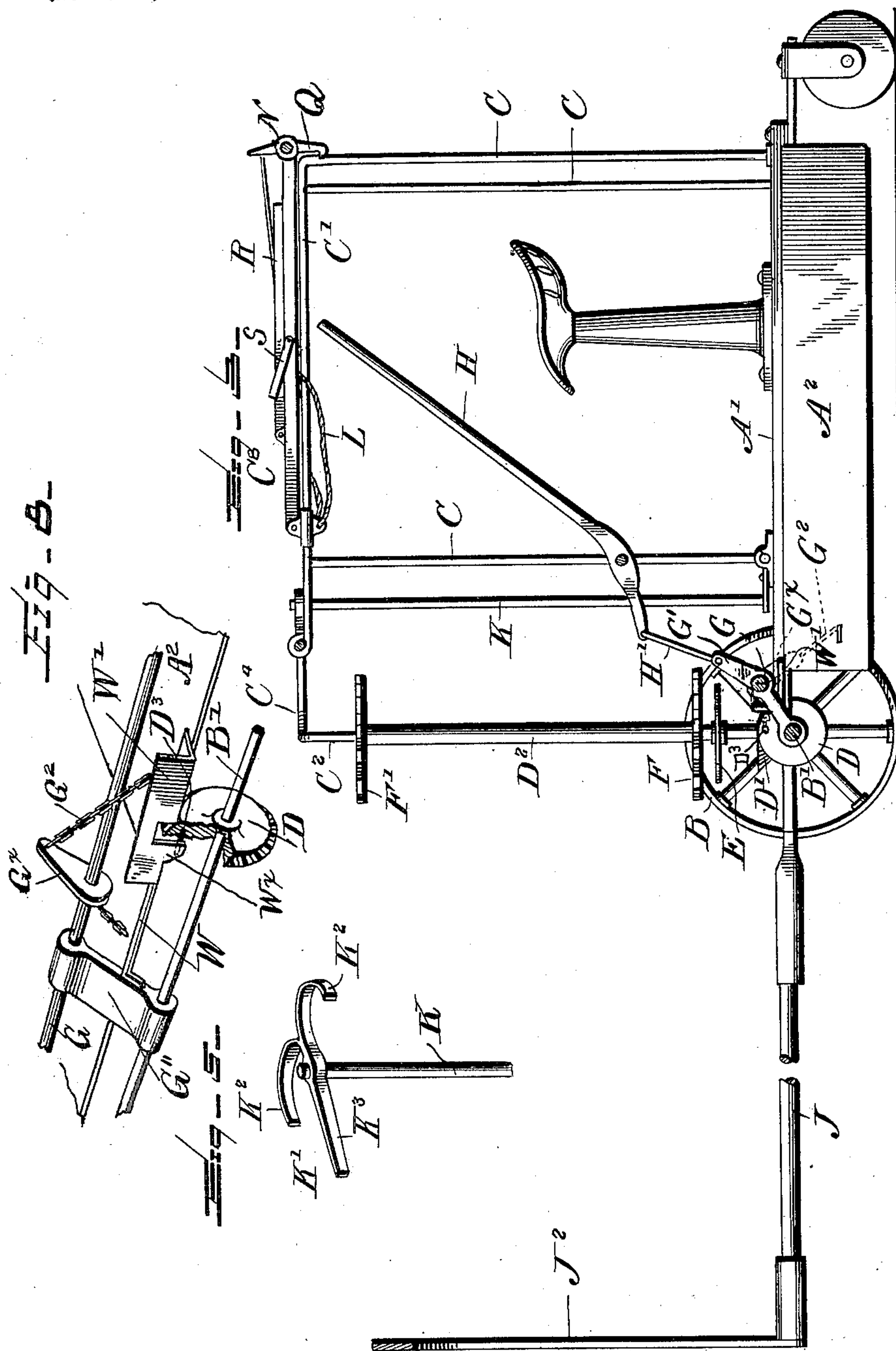
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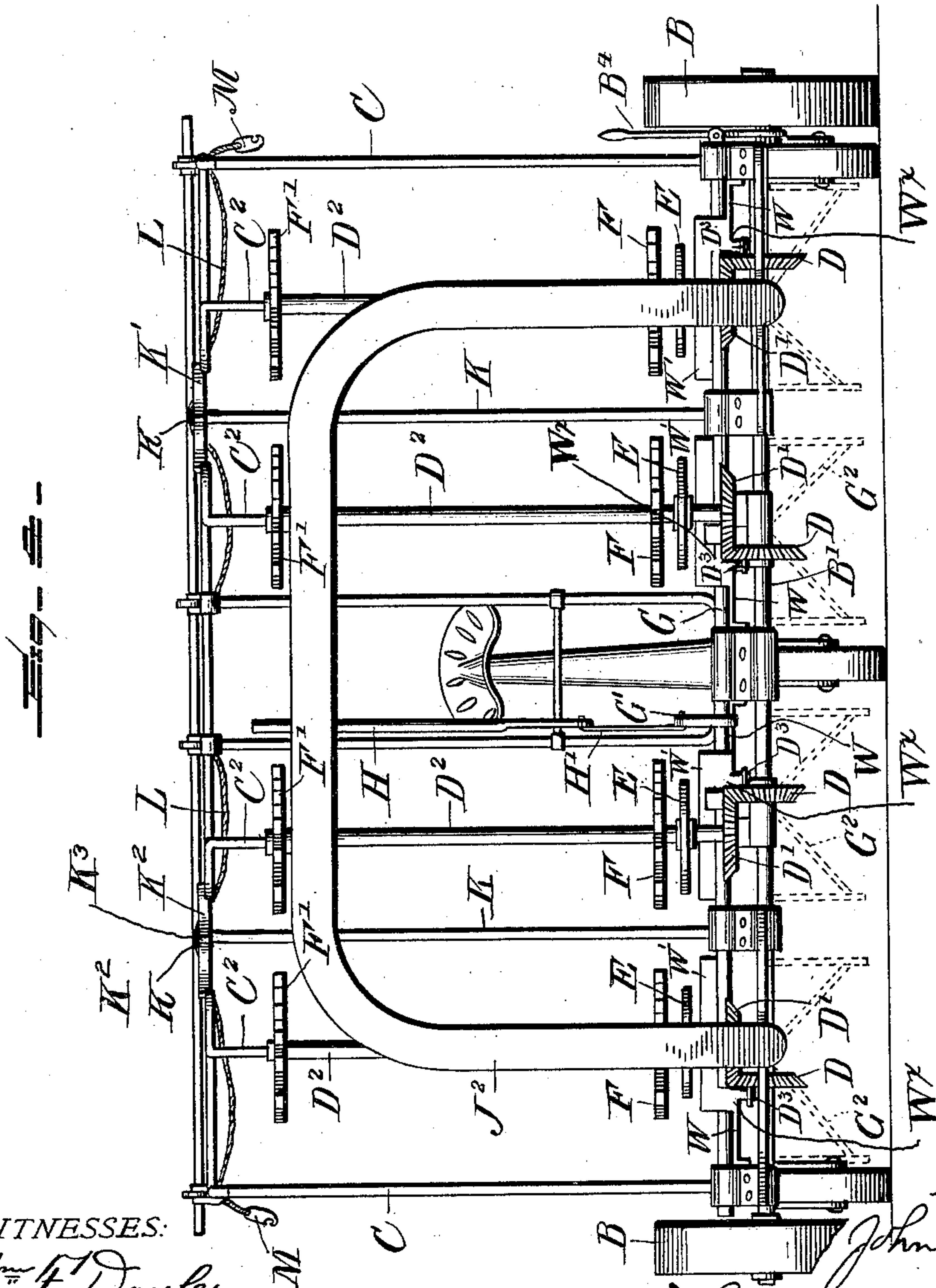
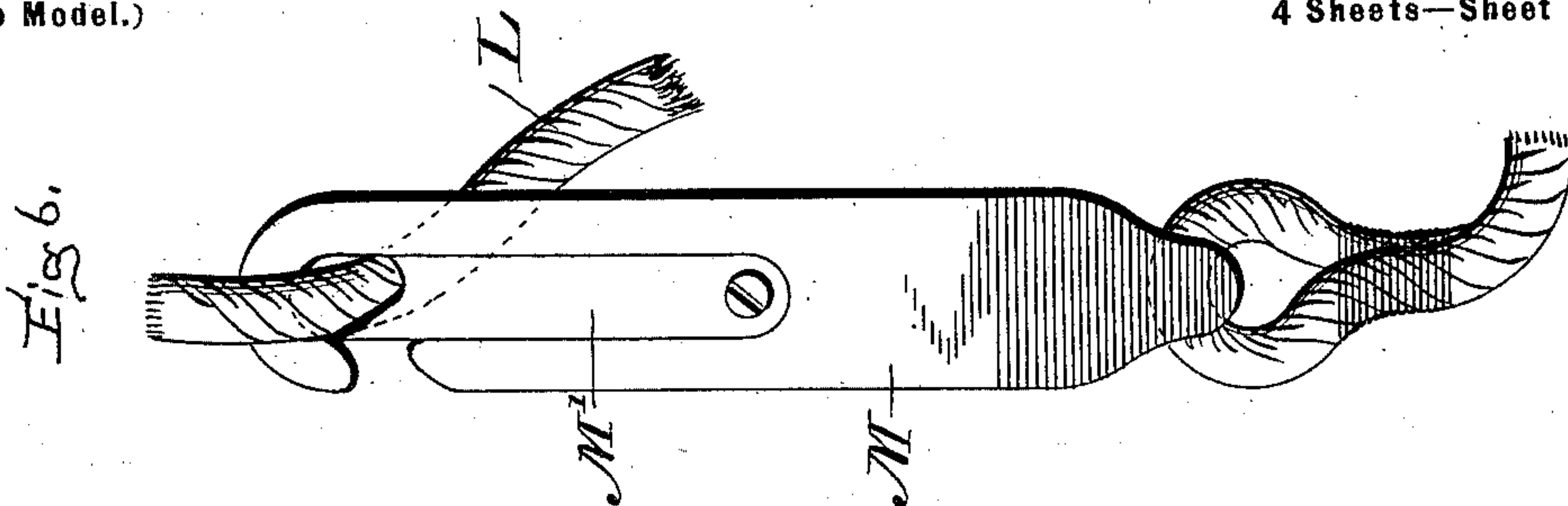
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# UNITED STATES PATENT OFFICE.

JOHN THOMAS GREEN, OF LAGRANGE, INDIANA.

## CORN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 688,167, dated December 3, 1901.

Application filed March 11, 1901. Serial No. 50,621. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN THOMAS GREEN, a citizen of the United States, residing at Lagrange, in the county of Lagrange and State of Indiana, have invented certain new and useful Improvements in Corn-Harvesters; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in corn-harvesters; and it consists in the provision of apparatus whereby two or more rows of corn may be simultaneously cut and after being bound deposited upon the ground.

The invention will be hereinafter more fully described, and then specifically defined in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form part of this application, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a perspective view of my improved corn-harvester. Fig. 2 is a top plan view. Fig. 3 is a sectional view taken on line 3-3 of Fig. 2. Fig. 4 is a front elevation. Fig. 5 is a detail of the dividing attachment. Fig. 6 is a detail view of means for holding the clamping-rope. Fig. 7 is a detail in perspective of a portion of the hinged frame and locking means therefor. Fig. 8 is a detail view in perspective of the means for pushing back on the table the stalks as they are cut.

Reference now being had to the details of the drawings by letter, A designates the platform of the machine, and B the driving-wheels, which are mounted on the axle B'. Said axle has a gear B<sup>2</sup>, which is adapted to be thrown into mesh with a gear B<sup>3</sup> by means of a clutch-lever B<sup>4</sup>, whereby said axle may be caused to rotate with the driving-wheels B. Mounted upon the platform are the upright rods C, which are connected together at their tops by means of rods C', forming a support for the hinged frame, which is mounted upon

the top of the frame. Keyed to the axle B' at any suitable location are the beveled gear-wheels D, which mesh with the beveled pinions D', which are keyed to rotate with the vertically-disposed shafts D<sup>2</sup>. These shafts D<sup>2</sup> have keyed near their lower ends the cutting-disks E, and immediately above said cutting-disks are the fingered stalk-engaging disks F, the ends of which are adapted to project beyond the circumference of said cutting-disks and to engage and feed rearward the stalks of corn as they are cut by said disks. It will be observed upon examination of the drawings that there are two sets of these cutting-disks with upright posts similarly constructed and so located as to come opposite two rows of corn, which are adapted to be cut at the same time. Said shafts D<sup>2</sup> are hollow and are journaled upon the upright posts C<sup>2</sup> of the frame of the machine, and secured to and rotating with said shafts D<sup>2</sup>, near their upper ends, are the fingered disks F', which are similar in construction to the disks F, before described. These disks F' are for the purpose of causing the upper ends or tops of the stalks to be fed rearward after the same have been cut. Said platform is made up of a series of parallel beams A', which are spaced apart, and in the spaces between said beams are the hinged tables A<sup>2</sup>, there being two of these tables between each pair of beams. Said tables are hinged at their outer edges to said rods A<sup>3</sup>, and journaled in the apertured ends of links G'', mounted upon the axle B', is a shaft G, which is parallel to the axle B', and keyed to said shaft G is a crank G', having connection with the operating-lever H by means of link connection H'. Also keyed to rotate with the shaft G are the crank-arms G<sup>x</sup>, which have chain connections G<sup>2</sup> with the free edge of each of said hinged-tables, whereby as the operating-lever H is drawn back said tables are drawn to horizontal positions with their free longitudinal edges adjacent to one another, and on the reverse movement of said operating-lever the tables are allowed to drop down into vertical positions, as shown in dotted lines in Fig. 4 of the drawings.

The dividers for receiving the hills of corn each consist of a vertical rod K, which is journaled at its lower end in suitable bearings in one of said beams A', while its upper



end is journaled in a bearing carried upon the framework of the harvester. Secured to each end of said rod is a dividing member  $K'$ , having two curved arms  $K^2$ , which merge together into said member adjacent to its pivotal point, and one end of said member is straight, as at  $K^3$ , and projecting a short distance beyond its pivotal point. These members are mounted adjacent to the cutters, and as a hill of corn is cut the upper and lower portions of the stalks are adapted to strike against one side or the other of the straight projecting portion  $K^3$ , and the impact or the slight pressure of the stalks against said straight end will cause the member to tilt laterally, so that its opposite side will strike against one of the curved geared irons  $C^4$  of the framework. As the hill of corn strikes one of the curved arms the dividing member will be partially rotated, so that its free straight end  $K^3$  will be thrown against the opposite curved rod  $C^4$ , thus allowing the next hill to engage the curved arm on the opposite side, thus alternately dividing the hills on one side or the other of the central bar  $C^6$ .

In order to compress the shocks for binding, a rope  $L$  is secured at one end to the frame, while its opposite or free end is held within convenient reach of the operator, whose seat is mounted near the central part of the platform, as shown in the drawings, the top of said seat being swiveled, so as to allow the operator to have access to the various parts of the machine while in operation. This compressing cord or rope is secured at one end to a block  $M$ , Fig. 6, having a clamping member  $M'$ , pivoted over a slotted portion therein, in which slotted portion the free end of the rope is caught and held by said clamping member temporarily while the shock is being bound. In compressing the shock the operator passes the rope about the stalks and draws the cord taut, and to hold the purchase while the shock is being tied the rope is caught in the slotted end of the block  $M$  and the pivoted tongue swung to the position shown in Fig. 6. There are two of these ropes similarly adjusted and loosely laid upon the top of the frame to receive the stalks as they are cut by the disks.

Hinged to the collars  $O$  on the top rods  $C'$  of the frame is a hinged frame  $N$ , which is adapted to swing away from the top of the frame. The longitudinal swinging end of the hinged frame is adapted to normally rest over the top of the frame adjacent to its rear end, as shown clearly in the drawings. This hinged frame is provided for the purpose of holding the stalks and the shock before the latter have been deposited upon the ground. To normally hold the hinged frame in a locked relation with reference to the frame, a catch  $Q$  is provided, which normally engages a stop on one of the upright rods  $C$  of the frame. An operating-lever  $R$  is pivoted to the hinged frame, as at  $C^8$ , and passes through a loop  $S$ , which loop is pivoted to one of the cross-pieces

of the hinged frame, as shown clearly in Figs. 1 and 3 of the drawings. Connecting said catch with the lever is a rod  $T$ , which as the lever is raised so that it contacts with the upper end of the loop  $S$  will cause said catch to be released from the stop or lug on the frame and allow the hinged frame to be raised vertically by a further forward movement of the operating-lever  $R$ , said hinged frame being lifted by the top as the lever is thrown forward.

The shafts of the machine consist of two poles  $J$ , which have their rear ends forked and provided with bearings  $J'$ , which are journaled over the axle  $B'$ . These poles are preferably made, as shown in the drawings, adjacent to the driving-wheels, so that horses which are hitched on the outside of each pole will be on opposite sides of the two intervening rows of corn, the forward ends of the poles being connected together by means of the curved bar or yoke  $J^2$ , which is curved, as shown, for the purpose of clearing the tops of the stalks.

In order to push the stalks rearward from the disks as they are cut, I provide push-plates  $W'$ , which are L-shaped and are mounted on spring-arms  $W$ , which are secured to the links  $G''$ , connecting the two parallel shafts  $B'$  and  $G$ . As the wheels  $D$  rotate, the pins  $D^3$ , carried thereby, will strike against the lug  $W^x$ , secured to said plates  $W'$ , which will cause the latter to spring back, and with the plates the stalks of corn will be forced rearward. As said arms are flexible, they will return to their normal positions, which are as shown in the drawings.

In operation the hills of corn in two rows are cut simultaneously, and at each revolution of the beveled gear-wheels the pins  $D^3$  carried thereby will throw the presser-plates rearward, which will push the stalks of corn onto the tables, and when a sufficient quantity of corn has accumulated, resting upon said tables held in horizontal positions and leaning against the swinging end of the hinged frame, the machine is stopped. The operator, grasping the free end of the compressing-rope carrying the block  $M$ , by winding the rope once about the bunch of stalks and catching the rope in the slot in the block  $M$ , compresses the shock by pulling the rope through the slot in said block and afterward binds the same with a cord, and turning upon his seat binds the second shock, after which he pushes forward on the operating-lever  $H$ , which through the link  $H'$ , connected to the crank  $G'$ , (the latter being keyed to the shaft  $G$ ,) will cause the latter to rock, and with it the cranks  $G^x$ , Fig. 1, which have chain connections with the free edges of the hinged dumping-tables. As each table  $A^2$  has similar connections with the shaft  $G$ , these tables  $A^2$  are thrown downward and the shocks fall to the ground. By throwing the lever  $R$  upward the hinged frame is thrown to a vertical position to free the tops of the stalks which are bound into shocks and the latter fall over



upon the ground, after which the tables are thrown to horizontal positions and the hinged frame thrown down to a horizontal position.

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

1. In a corn-harvester, the combination with the platform, the gear-shaft and driving-wheels, the upright frame, the rotary cutters and the fingered disks as described, the dividing mechanism mounted adjacent to the cutting-disks adapted to automatically throw the hills of corn alternately on one side or the other of the upright bars or rods of the frame-work, as set forth.

2. A corn-harvester, comprising in combination with the platform, a geared shaft and operating-wheels, horizontally-disposed cutting-disks and vertical shafts supporting same, said shafts being journaled on upright portions of the frame, fingered disks mounted at the opposite ends of said disk-carrying shafts, hinged tables arranged in pairs in the rear of each cutting-disk, and a dividing attachment mounted intermediate each pair of tables, and adapted to alternately throw hills of corn on one or the other of said tables, as set forth.

3. A corn-harvester, comprising in combination with the platform, the geared driving-shaft and wheels mounted thereon, the vertical shafts having geared connection with the driving-shaft, the cutting-disks keyed to rotate with said vertical shafts, the fingered disks mounted near the upper and lower ends of said vertically-disposed shafts, the hinged tables arranged in pairs, and means for operating the same, the dividing member having curved arms and shaft carrying same, which latter has a slight rocking motion, and mounted adjacent to the fingered disks, one of said curved disks being located adjacent to each pair of fingered disks, as set forth.

4. In combination with a corn-harvester having the platform, geared driving mechanism and cutters as described, the fingered disks, the dividing attachment consisting of a vertically-mounted rod journaled to have a

partial rotary movement in the frame of the harvester, members each having two curved arms with a forwardly-projecting straight portion one member keyed to the upper and the other to the lower end of said rod, the straight ends of said members being disposed between and slightly above each pair of fingered disks.

5. In combination with a corn-harvester having a platform, the geared driving-shaft, the horizontally-disposed cutting-disks, the fingered disks, an automatically-operated dividing member for dividing the hills of corn, a hinged frame pivoted to the frame of the harvester adapted to support the stalks as they are cut, and means for swinging said hinged frame, as set forth.

6. In combination with the platform, the driving-shaft and wheels mounted thereon, the horizontally-disposed cutting and fingered disks, the dividing member, the hinged tables, the shaft having crank and chain connections with said tables, the operating-handle connected to said table-actuating shaft, a hinged frame pivoted to the framework of the harvester, a handle pivoted to the hinged frame, a catch secured to and rotating with the free end rod of said hinged frame, and rod connection between said catch and operating-lever pivoted to said hinged frame, whereby as the operating-lever is raised, the catch is released and the hinged frame raised, as shown and described.

7. In combination with the main driving-shaft, the parallel shaft and links G' supporting same above the operating-shaft, the spring-arms secured to said links, the plates on said arms, the bevel gear-wheels and pins carried thereby which are adapted to actuate said arms as said wheels rotate, for the purpose of pushing the stalks of corn back on the tables behind the cutting-disks, as set forth.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

JOHN THOMAS GREEN.

Witnesses:

MOSES BALYEAT,  
J. L. SHORT.