

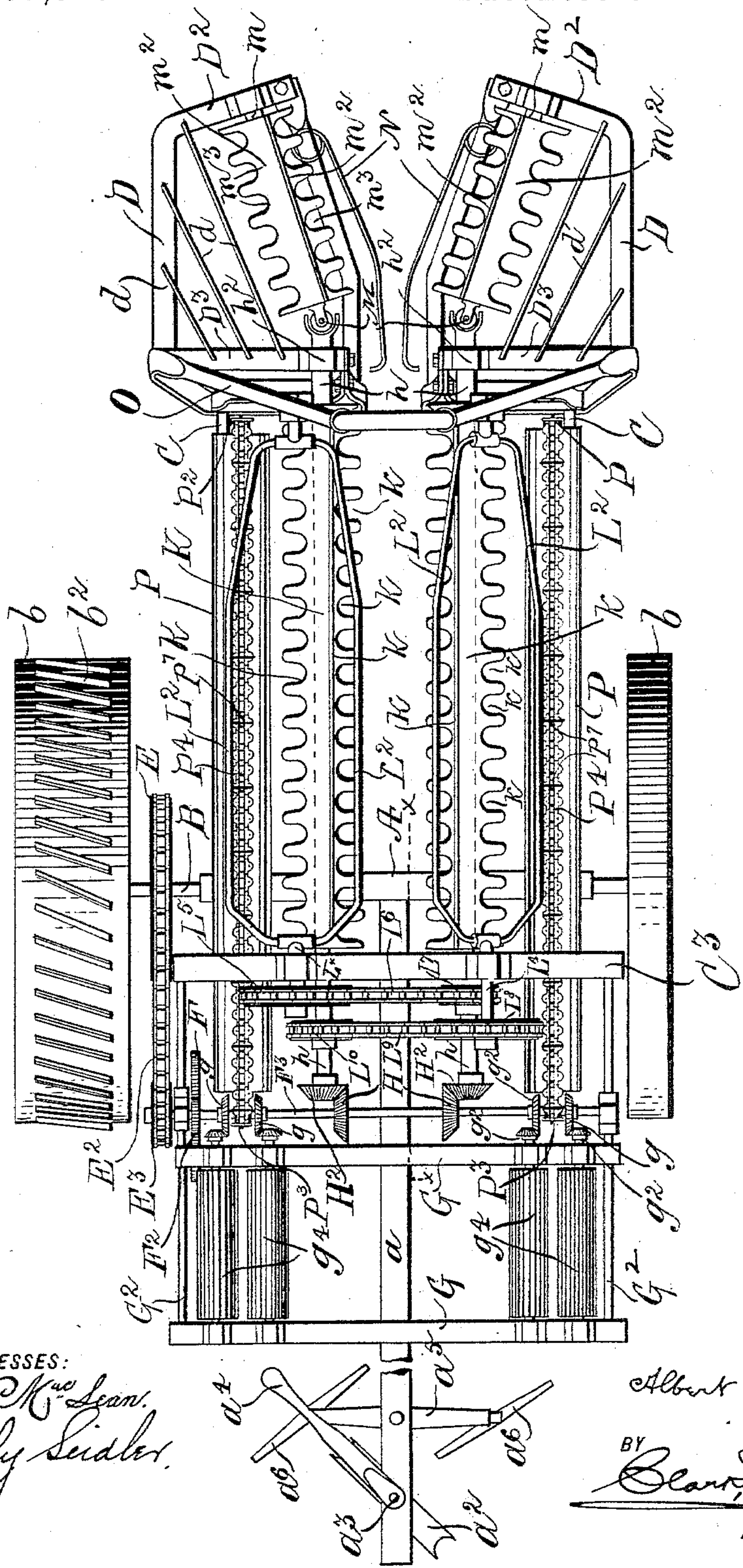
(No Model.)

3 Sheets—Sheet 1.

A. D. OSGOOD.
CORN HARVESTER.

No. 597,545.

Patented Jan. 18, 1898.



WITNESSES:

M. G. Mason.
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INVENTOR

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(No Model.)

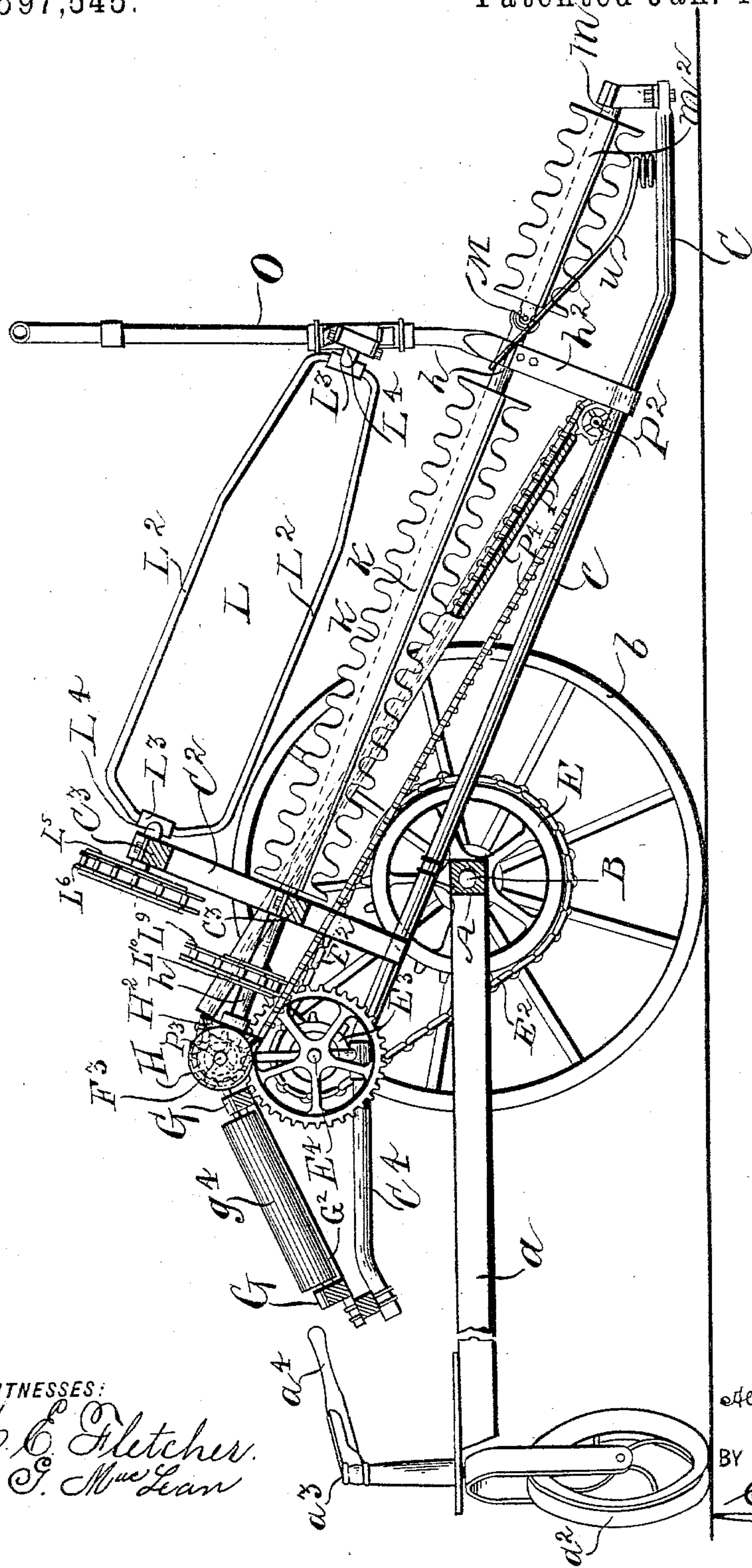
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A. D. OSGOOD.
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No. 597,545.

Patented Jan. 18, 1898.

Fig. 2.



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(No Model.)

3 Sheets—Sheet 3.

A. D. OSGOOD.
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Fig. 4.

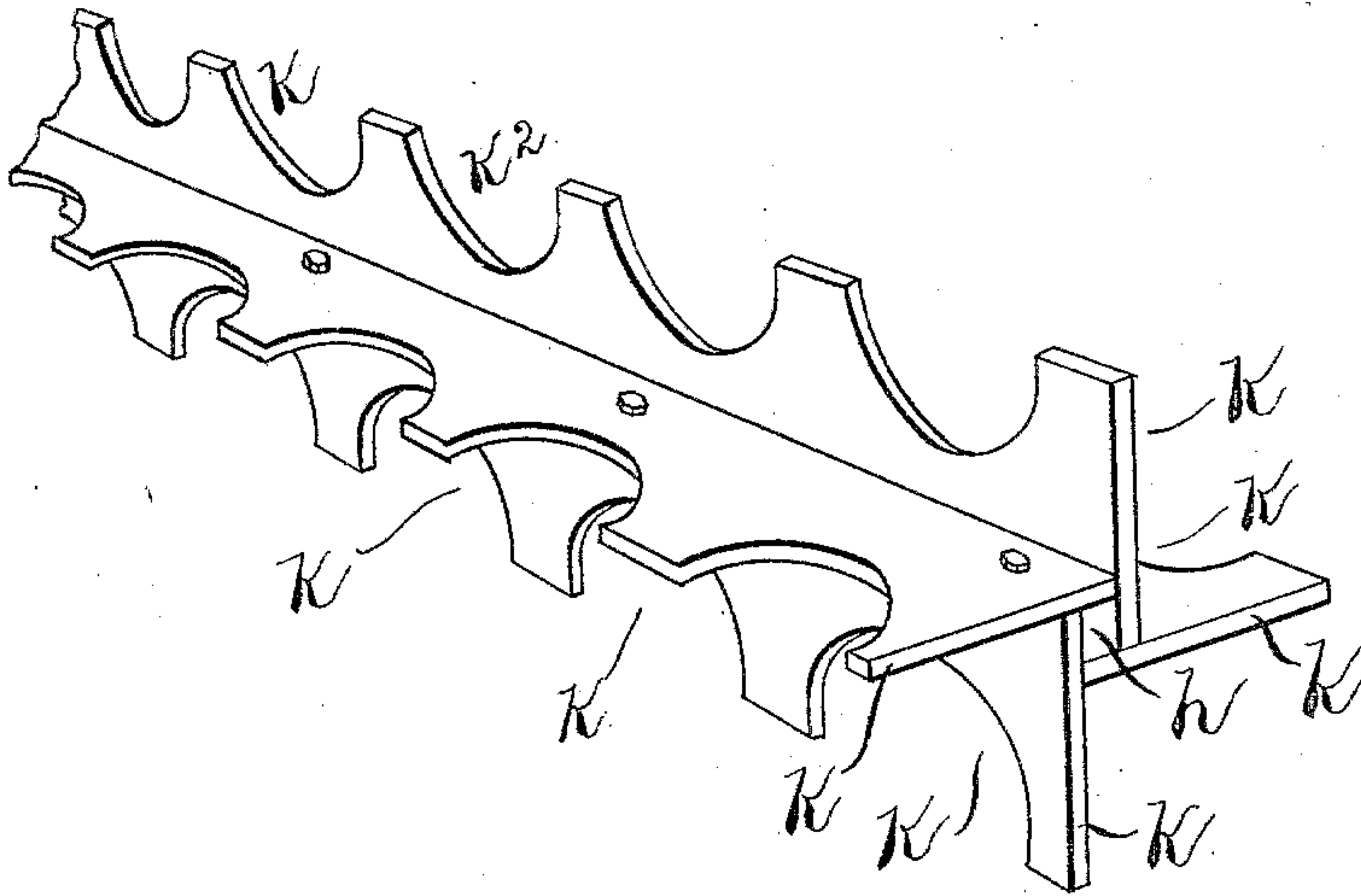


Fig. 5.

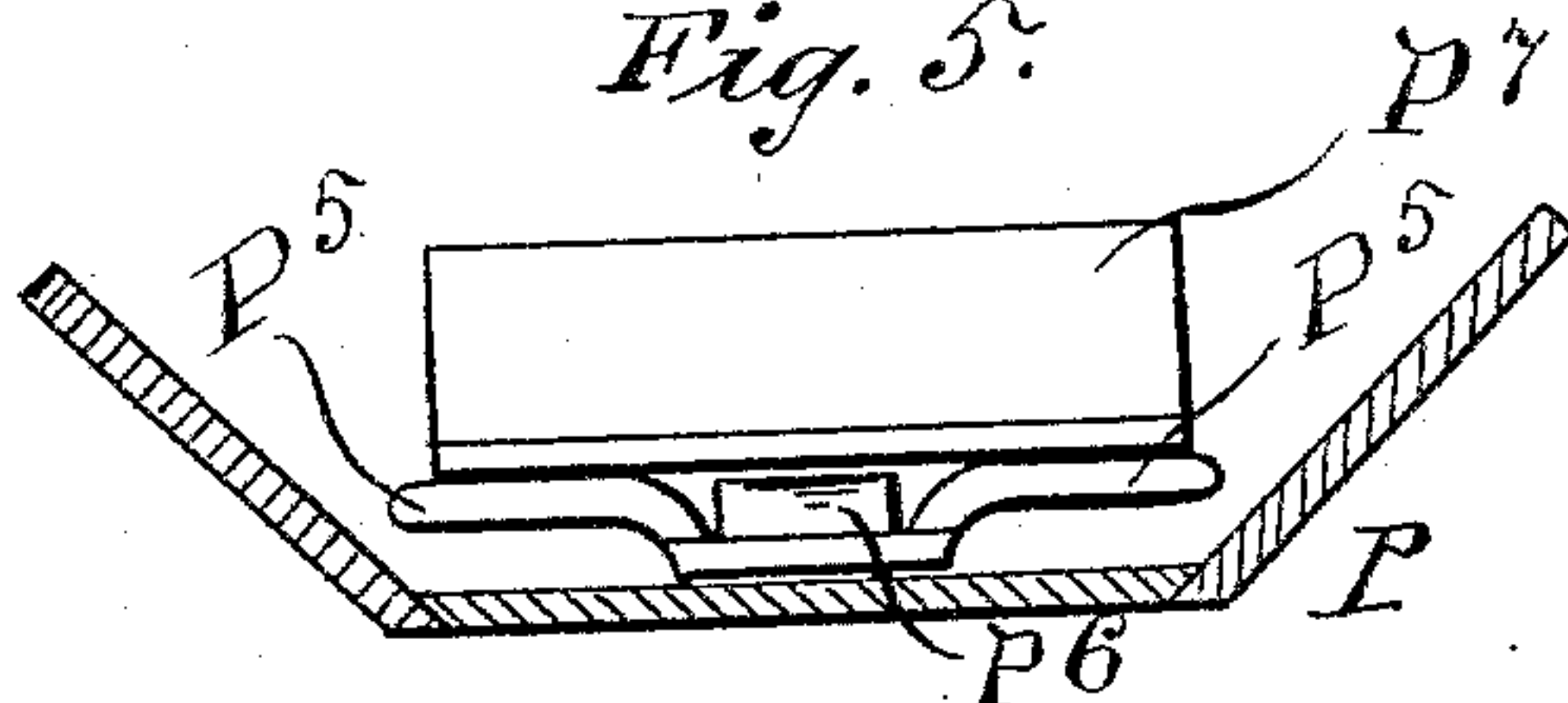
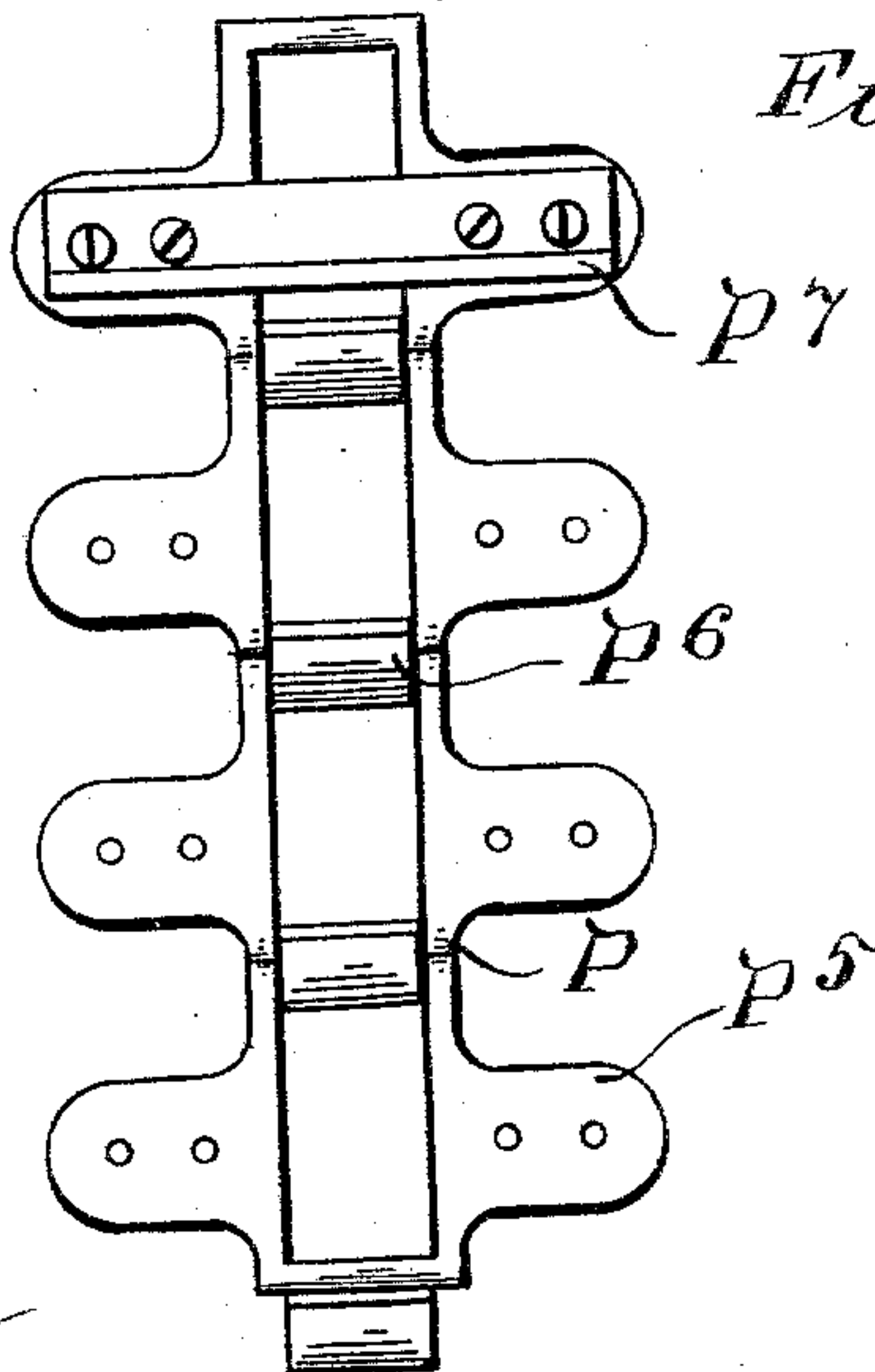


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALBERT DAVID OSGOOD, OF HARBINE, NEBRASKA.

CORN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 597,545, dated January 18, 1898.

Application filed March 20, 1896. Serial No. 584,115. (No model.)

To all whom it may concern:

Be it known that I, ALBERT DAVID OSGOOD, a citizen of the United States, and a resident of Harbine, county of Jefferson, and State of Nebraska, have invented certain new and useful Improvements in Corn-Harvesters, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to corn-harvesters; and the object thereof is to provide a machine for this purpose which is adapted to pick or gather the ears of corn and to husk the same, a further object being to provide an effective machine of this class which is comparatively simple in construction and operation and which is not liable to get out of order; and with these and other advantageous objects in view the invention consists in the construction and combination of parts hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a plan view of my machine. Fig. 2 is a longitudinal vertical section thereof on line xx of Fig. 1. Fig. 3 is a detail plan view of the chain used in connection with the troughs. Fig. 4 is a perspective view of detail of construction of the cutting and picking blades. Fig. 5 is a section of the trough and end view of the elevator-chain, the chain being parted so as to show an end view of the link.

In the practice of my invention I provide a tubular cross-head A, to which a tongue or pole a of the machine is secured, and this tongue or pole may be of any desired length, and the outer end thereof is provided with a wheel a^2 , by which it is supported and by which the machine is guided, and secured to the upper end of the shaft a^3 , on which said wheel is mounted, is a crank or handle-bar a^4 , by which the direction of the machine may be controlled, and pivotally connected with said tongue or pole in front of said wheel a^2 is an ordinary doubletree a^5 , which is provided with the usual singletrees a^6 , to which the horses are hitched in the usual manner, and when the horses are hitched to the ma-

chine their heads will be in the direction thereof, and in operation the machine is pushed forward, as hereinafter described.

Passing through the tubular cross-head A, which forms the axle of the machine, is a revoluble shaft B, to which are secured the usual wheels b , which may be of any desired form or construction, and one of which is preferably larger than the other and the rim or tire thereof wider, and said rim or tire is provided on its outer surface with diagonal shoulders or projections b^2 , which are designed to keep the machine from slipping or sliding.

I also mount upon the axle A a suitable frame, which consists of heavy parallel rods or bars C, two of which are employed, one at each side, which are held or mounted in an inclined position, and the rear or upper ends of which are provided with upwardly-directed side bars C^2 , which are connected by cross-bars C^3 , and the side bars or rods C are projected rearwardly to form extensions C^4 , which are substantially parallel with the tongue or pole a , and the front end of said bars or rods C^2 are inclined downwardly, as described, and projected a predetermined distance in front, and the extreme forward ends thereof are provided with suitable frames, as shown in Fig. 1, said frames being composed of side or end plates D and D^2 and rear cross-plates D^3 , and the plates D, D^2 , and D^3 are connected by diagonal rods d ; but these features of construction may be modified to any desired extent.

Mounted on the shaft B near one end thereof is a drive-wheel E, on which is mounted a drive-chain E^2 , which passes over a smaller wheel E^3 , which is mounted on the shaft E^4 , as shown in Fig. 2, and immediately over the shaft E^4 is another shaft F^3 . Mounted on the shaft E^4 of the wheel E^3 is a large gear-wheel F, which engages with a smaller gear-wheel or pinion F^2 , which is mounted on a shaft F^3 , which extends transversely of the main frame, and mounted on said shaft F^3 , adjacent to each end thereof, are two beveled gear-wheels g , which are adapted to operate in connection with corresponding beveled gear-wheels, which are mounted on the shafts of the husking-rolls g^4 , which are supported in a suitable frame composed of cross-bars G, which are

united by end rods G^2 , and said husking-rolls are arranged in pairs, as clearly shown in Fig. 1, and at a downward inclination, as shown at Fig. 2.

5 At each side of the center of the shaft F^3 is arranged a beveled gear-wheel H , which operates in connection with the corresponding beveled gear-wheels H^2 , which are mounted on shafts h , which extend forwardly and downwardly and the forward ends of which pass through suitable supports h^2 and the central parts of which are square in cross-section, as shown in Fig. 4, and mounted on these shafts h are cutting and picking blades K , 10 which are secured to the shafts in the manner shown in Fig. 4, four of said blades being employed, one of which is secured to each side of the shaft and projects outwardly therefrom, each of said blades being at right angles to the adjacent two, and each of said blades being provided in its outer edge or surface with segmental notches or recesses k , which extend throughout the entire length thereof.

25 Mounted in the upper portion of the frame and extending forwardly are reels L , which consist of side rods or bars L^2 , which are united at each end, as shown at L^3 , and which are also pivotally supported at each end by means of shafts L^4 , connected therewith, and 30 the shaft L^4 at the rearward end of one of said reels is provided with a gear-wheel L^5 , on which is mounted a drive-chain L^6 , which passes over a smaller gear-wheel L^7 on one of the shafts h , and mounted on the shaft L^4 of the other reel is a large gear-wheel L^8 , on which is mounted a drive-chain L^9 , which passes over a smaller gear-wheel L^{10} , which is mounted on the other shaft h .

40 The forward ends of the shafts h are each connected by means of ball-and-socket joints, as shown at M , with other shafts m , which extend forwardly and outwardly therefrom and which are provided with cutting and picking blades m^2 in the same manner, and which 45 are of the same construction as those connected with the shafts h , said blades being secured to said shafts m and being provided with notches or recesses m^3 in their outer edges, and secured to the forward side frames 50 are inwardly and backwardly directed spring-arms N , and I also provide a yoke O , the sides of which are connected with the forward end of the main frame, and said yoke extends upwardly and backwardly and serves as a support for the forward ends of the reels L .

Arranged below and at a little to one side of the reels L and the shafts h , which are provided with the cutting and picking blades 60 K , are elevator-troughs P , which are of the form shown in cross-section in Fig. 5, and at the forward end of these troughs are sprocket-wheels P^2 , and mounted on the shaft F^3 , at the rear end of the machine, adjacent to the ends of said troughs, are similar sprocket-wheels P^3 , and mounted on said sprocket-wheels P^2 and P^3 and passing through and

beneath the said troughs P are endless chains P^4 , said endless chains being of the form and construction shown in Figs. 3 and 5 and being composed of separate links having side plates or projections P^5 , and said links are pivotally connected in any desired manner at P^6 , and arranged at regular intervals along the chain are upwardly-directed plates P^7 , 75 which are bolted or secured to the projecting sides of the separate links, and said chains are adapted to be carried through and around the elevator-troughs P in the operation of the machine, as hereinafter described. 80

It will be observed that the machine as herein described, or that portion thereof which projects in front of the axle A , is composed of two separate sides or frames and that the forward ends of these said frames are 85 united by the yoke O , and in the operation of the machine a row of corn is straddled, and as the machine is pushed forward the stalks of corn are passed between the separate parts of the frame and the operation is 90 substantially as follows:

As the machine is pushed forward the shafts h are each, together with the cutting and picking blades mounted thereon, revolved in opposite directions, so that the tops 95 thereof approach each other during rotation, and the reels L are revolved in opposite directions, so that the bottoms thereof approach each other during rotation, and the supplemental shafts m , which are connected with 100 the shafts h by ball-and-socket joints, are also revolved, so that the tops thereof approach each other during rotation together with the cutting and picking blades thereon. It will also be understood that the husking- 105 rails g^4 are each revolved inwardly, so that the rolls of each separate pair are turned together and each toward the other, and in the operation of the machine as it is pushed forward in the manner described the stalks 110 of corn pass between the separate parts of the frame, and the spring-arms M are designed to pick up those stalks which have fallen, so that they may be operated upon by the reels and cutting and picking blades, and as the machine progresses the stalks pass between 115 the separate reels and between the separate shafts h , which are provided with the cutting and picking blades K , and the ears of corn are picked off and fall into the trough P and carried backward and dropped between the husking-rolls g^2 at each side of the machine, and the husking-rolls g^4 operate to remove the husks from the ears, and, if desired, a 120 trough, box, or other receptacle may be provided, into which the ears may drop. 125

The front parts of the side frames, in which the shafts m are mounted, are primarily intended to pick up the corn which has fallen, and the shafts m , provided with the blades 130 m^2 , serve to break off the leaves or blades from the lower parts of the stalks.

The husking-rolls are arranged, as hereinbefore stated, at the rear end of the elevator

or trough P, and these rolls are corrugated; and my invention is not limited to the exact form, construction, combination, and arrangement of parts herein described, and I therefore reserve the right to make all such changes in and modifications thereof as fairly come within the scope of my invention.

It will be observed that my improved machine runs like a header, and the team is out of the way of the corn, and the man that runs the machine is at the rudder or guide-wheel α^2 , and is thus able to keep the machine in the right direction.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

In a corn-harvester, the combination with a suitable frame or support which is mounted on an axle provided with a revoluble shaft on which are mounted the main wheels of the machine, and means for applying power thereto and guiding the same, of a suitable frame which projects forwardly and downwardly, two shafts mounted therein, longitudinally thereof, each of which is provided with stripping-blades of scalloped form and two reels or beaters, one of which is mounted over each of said shafts and pivoted on shafts in the

upper part of the frame, two supplementary shafts operating in conjunction with the shafts carrying the stripping-blades, said frame also being provided below and outside of said shafts with elevator-troughs on which are mounted endless chains and a pair of husking-rolls arranged at the rear end of said elevator-trough, and a shaft which is mounted transversely of the frame between the husking-rolls and the elevator-troughs and which is adapted to be operated from the main shaft on which the main wheels are mounted, said shaft being provided with beveled gear-wheels by which the shafts on which the picking and stripping blades are mounted are operated, each of said reels being adapted to be operated by the shafts on which the stripping and picking blades are mounted, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 16th day of March, 1896.

ALBERT DAVID OSGOOD.

Witnesses:

F. T. McMAHON,
J. S. HOLE.