

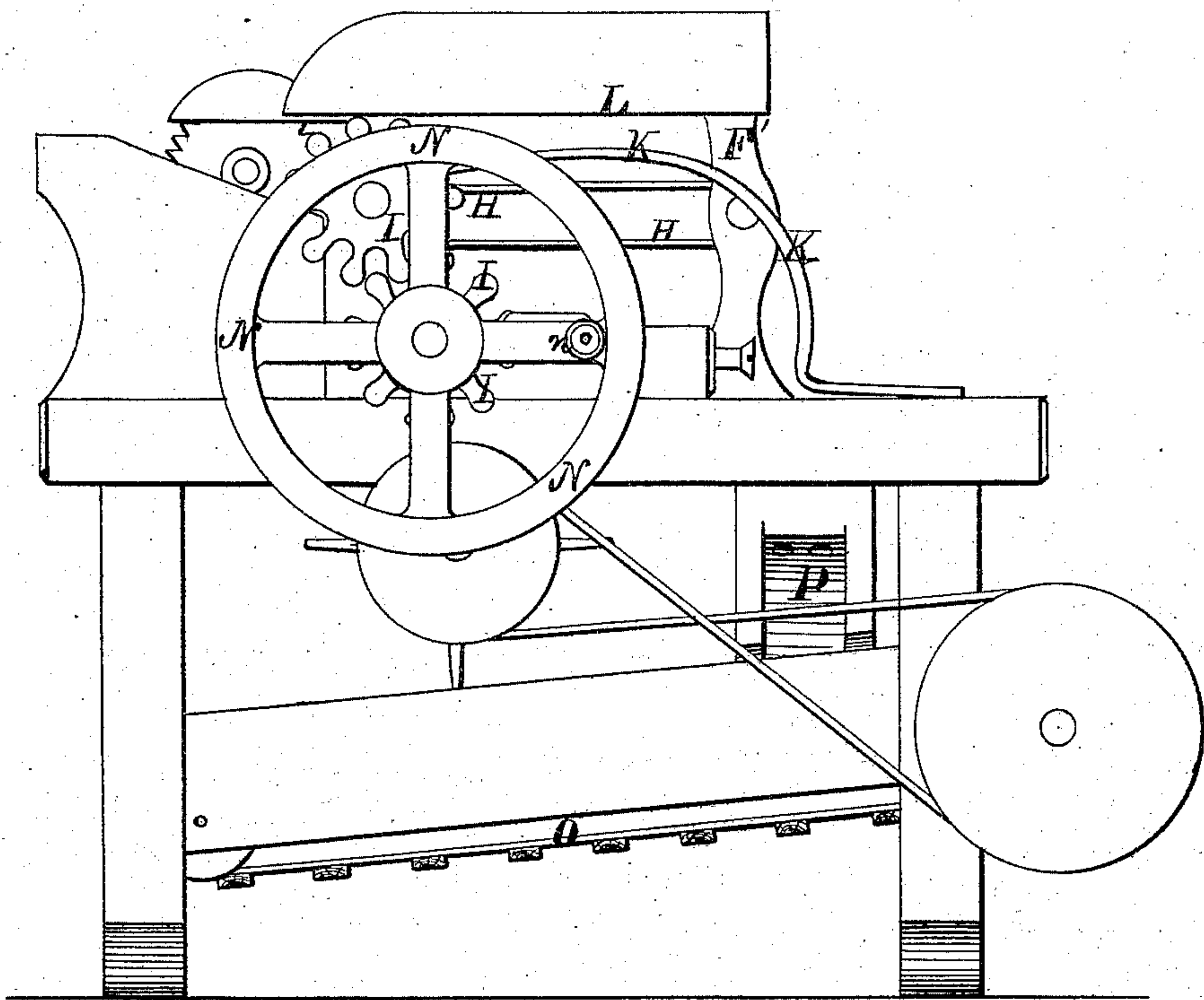
3 Sheets--Sheet 1.

F. M. WIDERMANN.
Corn-Husking Machines.

No. 156,833.

Patented Nov. 10, 1874.

Fig. 1.



WITNESSES-

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 John R. Young*

INVENTOR.

*Francis M. Widemann, by
 Prindle & Co. Attys*

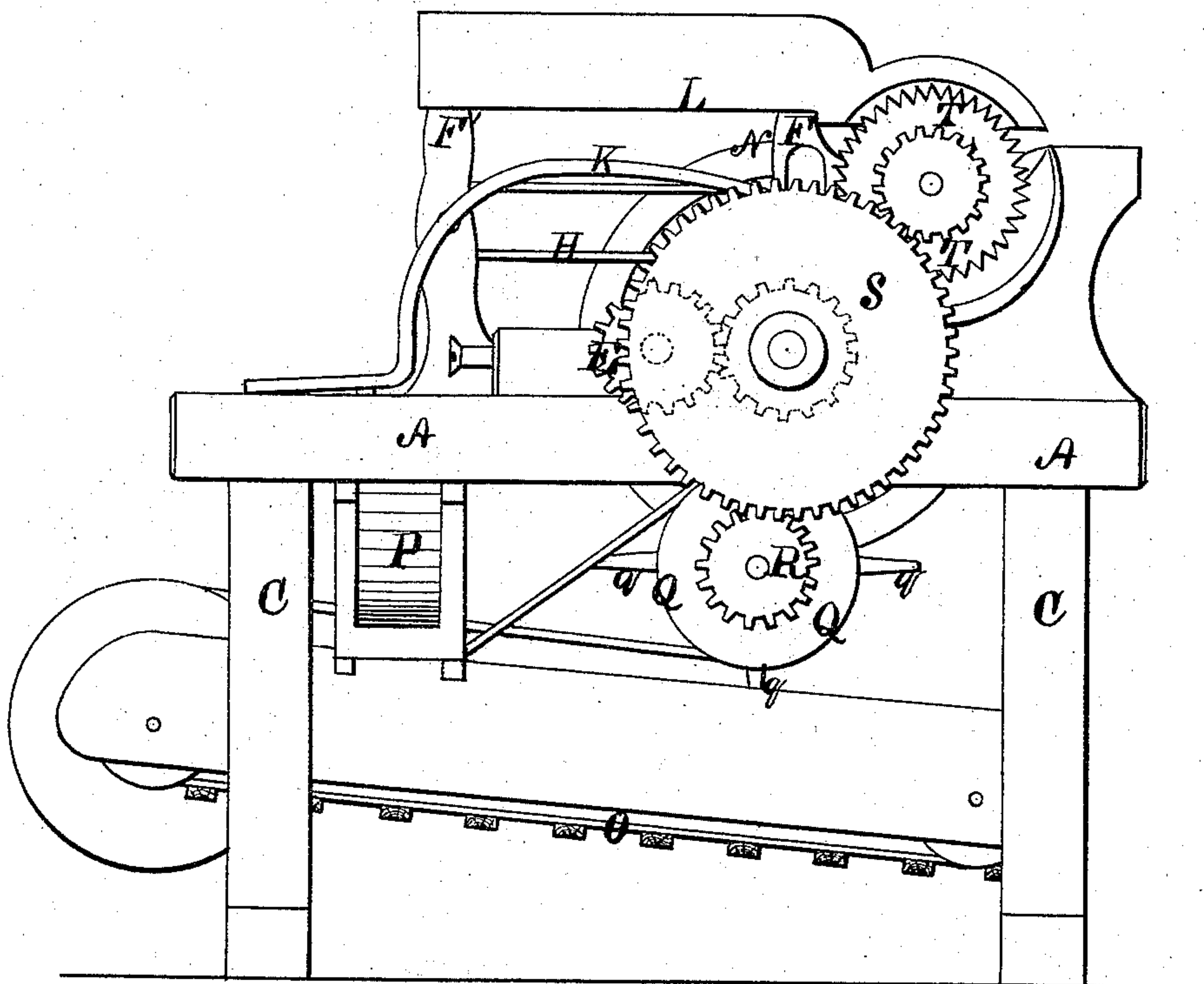
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Fig. 2.



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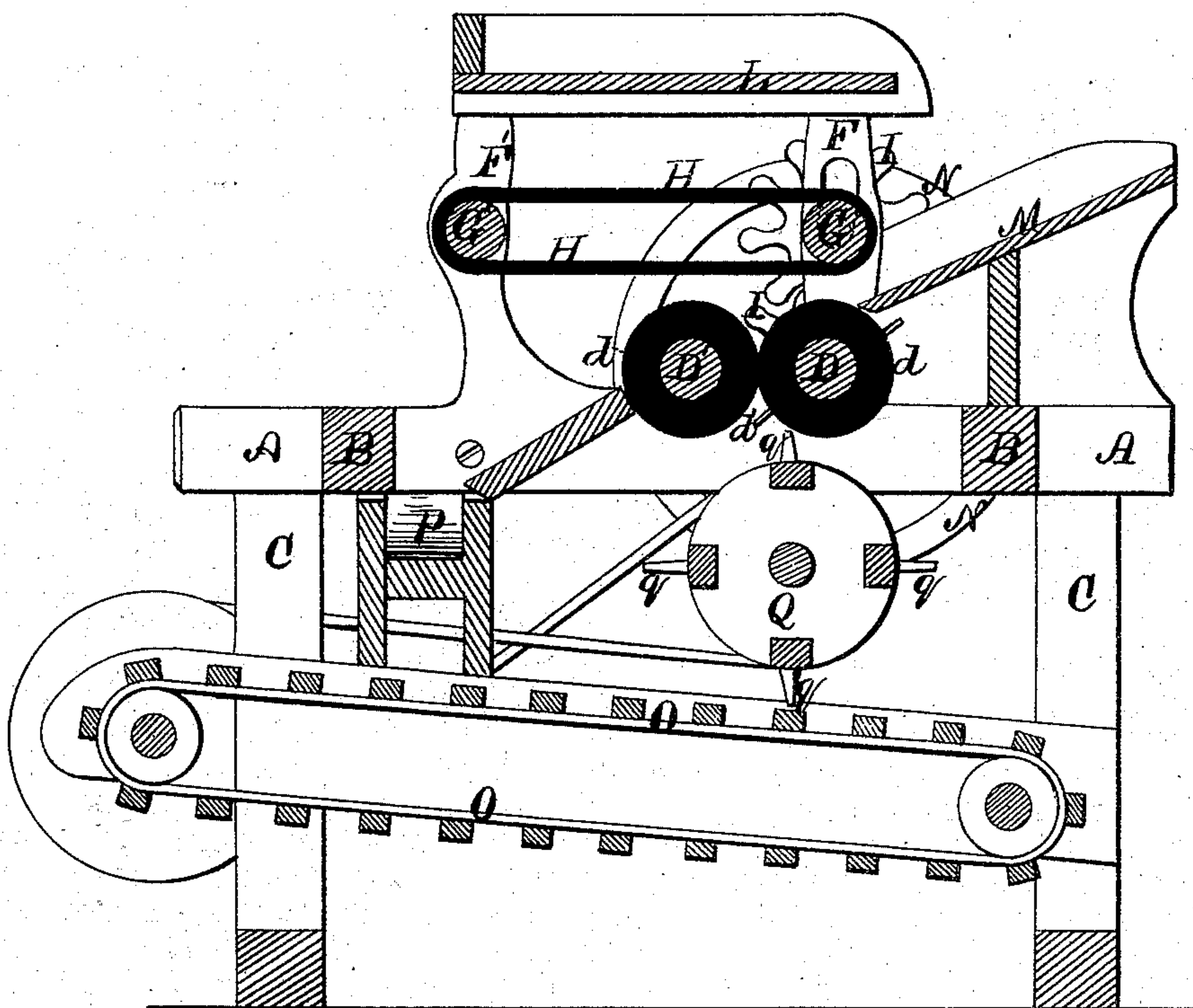
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Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANCIS M. WIDERMAN, OF CATONSVILLE, ASSIGNOR OF ONE-HALF HIS
RIGHT TO CHAS. RIDGELY GOODWIN, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN CORN-HUSKING MACHINES.

Specification forming part of Letters Patent No. **156,833**, dated November 10, 1874; application filed
September 5, 1874.

To all whom it may concern:

Be it known that I, FRANCIS M. WIDERMAN, of Catonsville, in the county of Baltimore and in the State of Maryland, have invented certain new and useful Improvements in Corn-Huskers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is an elevation of one side of my improved machine as arranged for use. Fig. 2 is a like view of the opposite side of the same, and Fig. 3 is a vertical central section of said machine upon a line passing from front to rear.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to enable corn to be easily and quickly husked by mechanical means; and to this end it consists, principally, in the construction and operation of the stripping-rollers, substantially as and for the purpose hereinafter specified. It consists, further, in the combination, with the stripping-rollers, of an elastic pressure-belt, which is arranged to move the ears of corn over said rollers, substantially as and for the purpose hereinafter shown.

In the annexed drawings, A and A represent two side rails arranged horizontally and in parallel lines, connected together by two cross-bars, B and B, and supported upon and by means of four posts or legs, C and C, the whole forming the frame of my machine. Journalled within suitable bearings upon the upper sides of the rails A and A are two rollers, D and D', which are covered with elastic material *d*, are placed with their peripheries in contact, and are caused to revolve simultaneously, and in opposite directions, by means of two spur-gear wheels, E and E', which are attached to the projecting ends of said roller-journals, and engage with each other. Within suitable standards F and F', attached to and extending upward from the rails A and A, are journalled two rollers, G and G', around which passes an elastic endless belt, H. One end of the forward roller G is connected, through two gear-wheels, I and I, with the correspond-

ing end of the forward roller D, so that as the latter revolves said rollers G and G' are rotated and said belt H caused to pass around the same. The bearings of the forward belt-roller G are arranged so that said roller can be raised above its normal position, while two springs, K and K, which are attached at one end each to or upon the frame, and at their opposite ends bear upon the projecting ends of the journals of said roller, hold the latter down to place with a pressure that may be varied at will. Above the endless belt H is placed a table, L, for containing ears of corn to be operated upon, while a second inclined table or guide-board, M, extends from the front end of the machine rearward and downward to the nearest roller D.

A balance-wheel, N, and a crank-handle, *n*, being attached to one end of the roller D, the machine is ready for operation as follows: Ears of corn are laid upon the inclined table, parallel to the stripping-rollers, and moved downward until caught between the same and the pressure-belt. The contiguous surfaces of the stripping-rollers move inward and downward, and, catching the husks of corn, remove the same from the ear and pass them downward upon an endless apron, O, which conveys said husks to the rear end of the machine. The operation of the stripping-rollers causes the ear of corn to revolve until entirely relieved from its husks, after which said ear is moved rearward by the pressure-belt and falls into a laterally-inclined trough, P, from whence it passes into a suitable receptacle that is placed beneath the end of said trough. In order that the husks may be broken and caused to engage with the stripping-rollers, the forward roller D is provided with two or more radial spikes, *d'* and *d'*, which project sufficiently to catch and tear said husks without coming into contact with the corn. When passing between said rollers, said spikes depress the elastic covering of the rear roller D', at the points of contact. In order that the husks may be prevented from clogging the stripping-rollers, a cylindrical open drum, Q, is suitably journalled beneath and slightly in advance of the centers of said rollers, and is provided with radial spurs *q* and *q*, which

nearly touch the periphery of the forward roller D. The clearing-drum Q is rotated upward and forward by means of a pinion, R, which is attached to the projecting end of its journal, and meshes with a gear-wheel, S, that is attached to the end of the shaft of the stripping-roller D. When, now, the machine is operated, the clearing-drum engages with and removes such husks as may adhere to the rollers, causing said husks to pass downward upon the apron or carrier. Upon many of the ears of corn is left by the picker a nub, which frequently has such size and shape as to interfere with the operations of the machine. For the removal of such nub I journal a circular saw, T, upon the left side of the frame, near its upper forward end, and connect the same through suitable gearing with the shaft of the stripping-roller D. If, now, it becomes necessary to remove a nub, the end of the ear containing the same is passed beneath the saw T. Said nub is separated and falls outside the machine, while the ear of corn passes downward to the stripping mechanism. If desired, the upper table may be removed and the ears

of corn cut by the saw directly from the stalk, and said ears then operated upon by the husking mechanism.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. The stripping-rollers D and D', having elastic surfaces and provided with radial spurs d' and d' , which, during their revolution, depress the yielding periphery of the opposite roller at the point of their contact therewith, substantially as and for the purpose specified.

2. In combination with the stripping-rollers D and D', arranged to operate as shown, the endless elastic pressure-belt H, placed above said rollers and traveling with the same speed as that of their peripheries, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of August, 1874.

FRANCIS M. WIDERMANN.

Witnesses:

GEO. S. PRINDLE,
JOHN W. PILLING.