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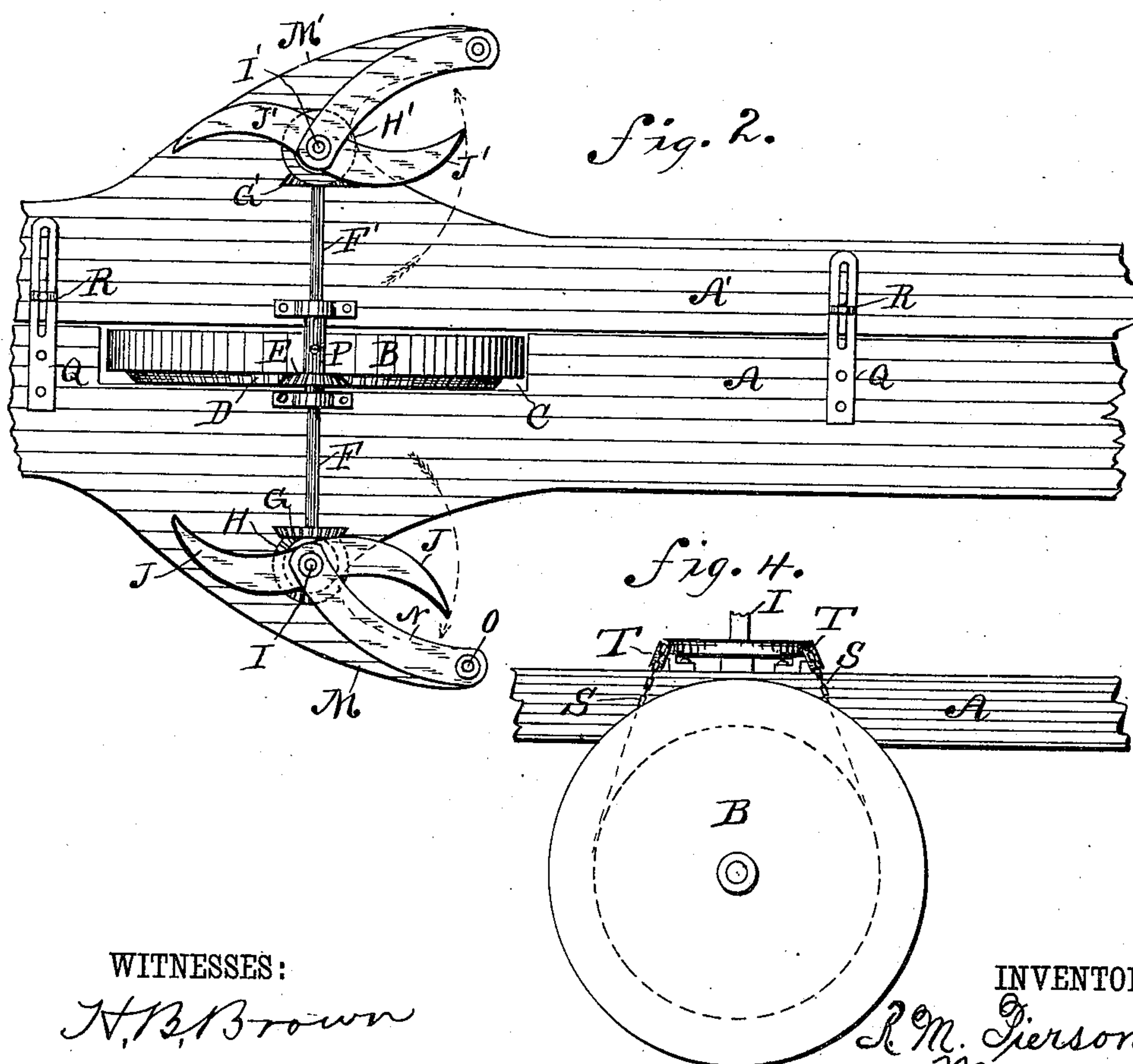
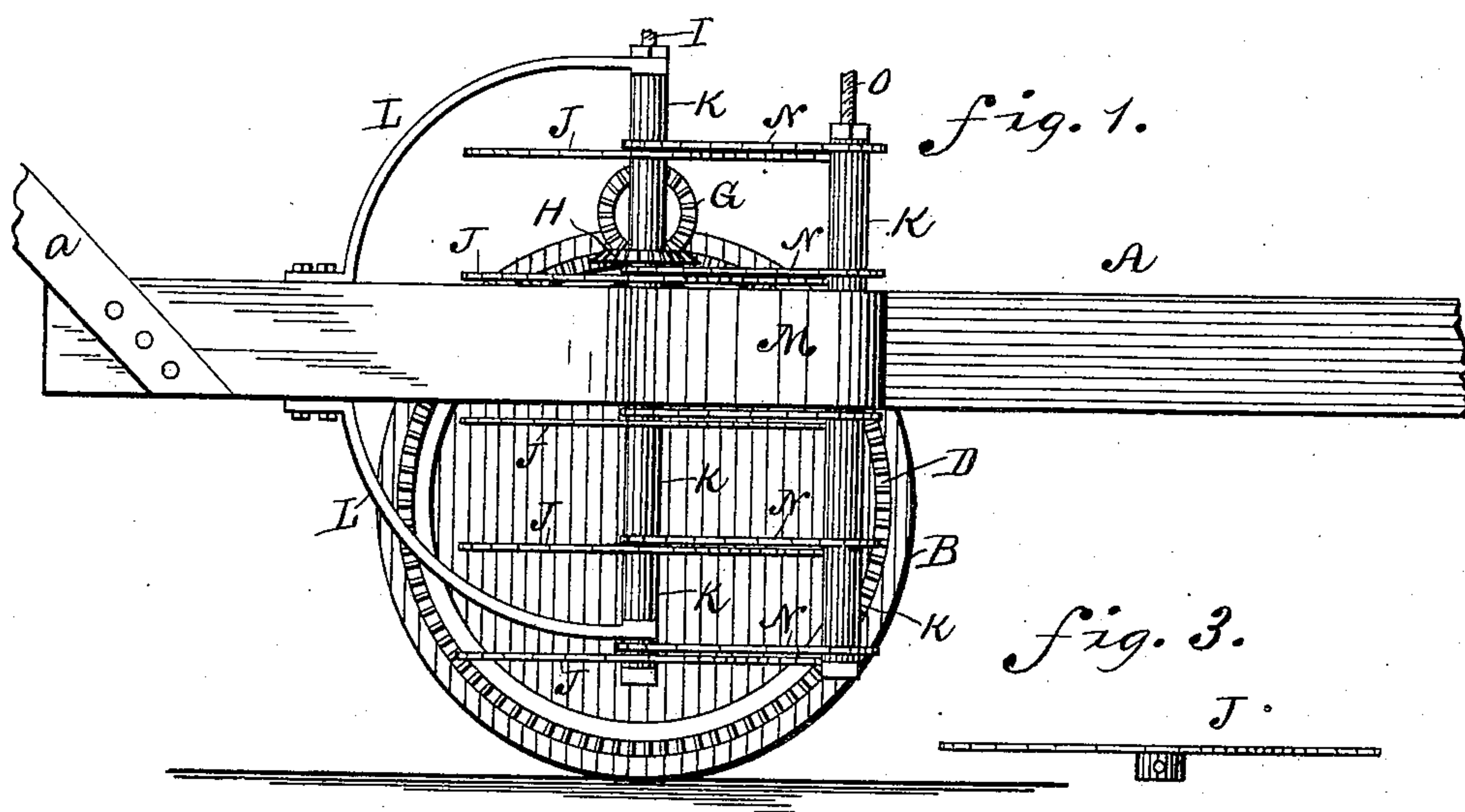
2 Sheets—Sheet 1.

R. M. PIERSON.

STALK CUTTER.

No. 306,771.

Patented Oct. 21, 1884.



WITNESSES:

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INVENTOR:

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ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 5.

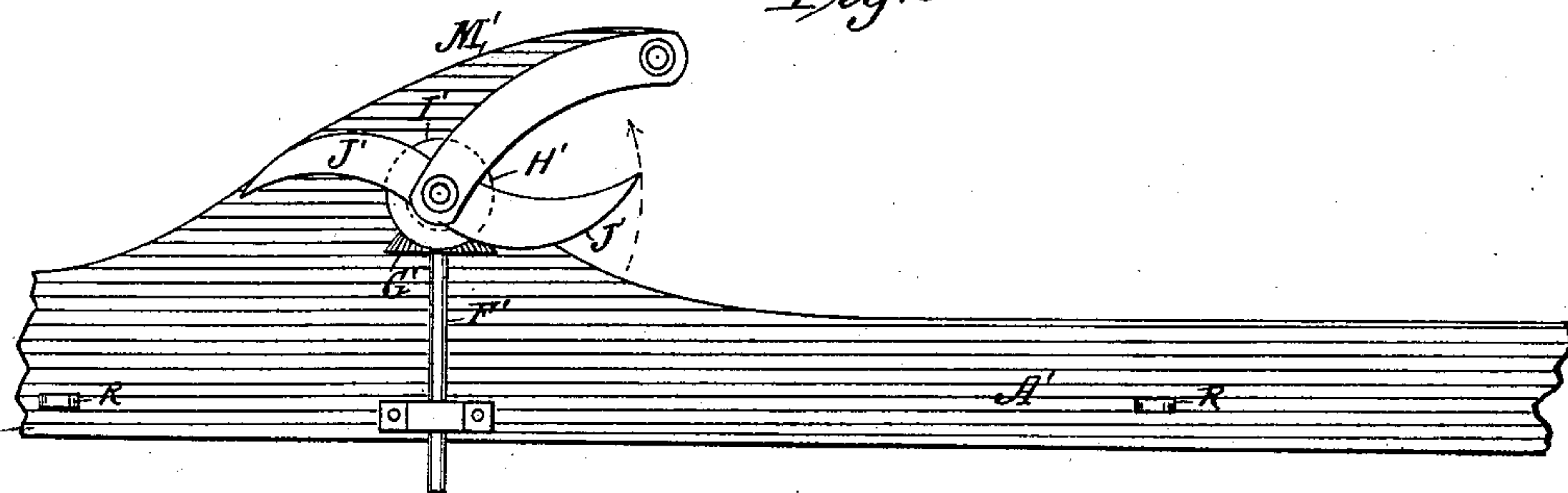
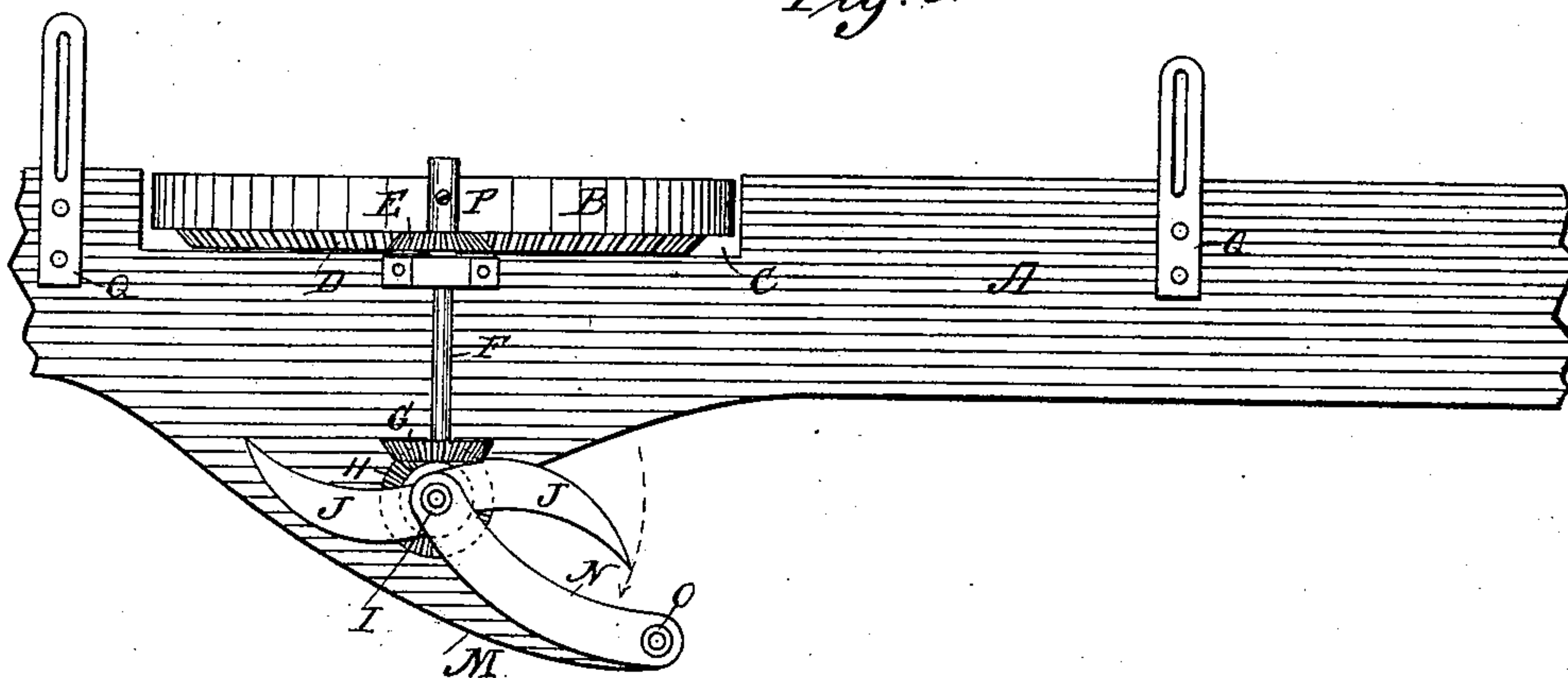


Fig. 6.



Witnesses;
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UNITED STATES PATENT OFFICE.

ROBERT MILLER PIERSON, OF MAYESVILLE, SOUTH CAROLINA.

STALK-CUTTER.

SPECIFICATION forming part of Letters Patent No. 306,771, dated October 21, 1884.

Application filed January 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, ROBERT M. PIERSON, of Mayesville, in the county of Sumter and State of South Carolina, have invented a new and useful Improvement in Stalk-Cutters, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, forming part of this specification.

My invention relates to one-wheeled cutters for cutting cotton and other stalks into small pieces as they stand in the field; and the invention consists of the novel construction hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of my stalk-cutter partly broken away. Fig. 2 is a plan view of the same, showing a duplicate attachment. Fig. 3 is a detail view of a revolving cutter; and Fig. 4 is a modified form of gearing. Figs. 5 and 6 are plan views of the attachment and stalk-cutter proper, respectively, showing the same detached from each other.

A indicates any suitable beam or frame which is to have handles *a* like plow-handles, and B is a wheel supporting the same. The wheel B is shown as extending up through an opening, C, in the beam, and the axle of the wheel carries a bevel-gear, D, which meshes with a bevel-gear, E, supported by a horizontal shaft, F, which is supported on top of the beam A. The outer end of the shaft F is provided with a bevel-gear, G, which meshes with a bevel-gear, H, supported by a vertical shaft, I, which carries the revolving cutters J. In order that the cutters may cut outwardly from the beam, the gear H is arranged below the gear G. The revolving cutters are supported at their centers, and have their ends curved right and left, respectively, as shown, being spaced on the shaft I by the sleeves K and the beam through which said shaft passes. This shaft I is supported at its ends by the arms L, which are secured to the beam. One of the sleeves K is to be adapted to serve as a bearing for one end of the shaft F, the other end being supported in a bearing attached to the beam A, as shown. At the side of the beam is an arm, M, for supporting the outer ends of the stationary cutters N. These cutters have concave cutting-edges, and are secured at their ends by the shaft I, above described, and a vertical shaft, O, parallel with

the latter, and which is supported in the outer end of the arm M. The revolving and the stationary cutters are to coact with each other like the blades of a pair of shears, they being arranged in pairs one above another. Any number of such pairs of cutters may be employed, according to the height of the stalks to be cut; and instead of forming each cutter entirely of steel, the body of the cutter may be made of iron, and steel cutting-blades may be removably secured thereto. With this construction as the machine moves forward in a line for bringing a row of stalks within range of the cutters the stalks will be caught by the concave edges of the revolving cutters and be drawn against the forward-moving concave edges of the stationary cutters, so that they cannot escape from the cutters until they are cut into pieces, when they will pass rearward through the spaces between the series of cutters.

The above construction constitutes a cutter for a single row of stalks; but it may be converted into a double cutter at will by an attachment consisting of a series of left-hand cutters suitably connected to the left-hand side of the beam. This attachment consists of a beam, A', having an arm, M', like the arm M in all respects, and having revolving and stationary cutters, the former of which revolve in an opposite direction from that of those above described. These cutters receive their motion from the shaft F by means of a shaft, F', which is connected to the latter by a coupling, P. The shaft F' is provided with a bevel-gear, G', gearing with a bevel-gear, H', on the vertical shaft I' which carries the revolving cutters J'. To secure the left-hand action of the cutters J', the gear H' is located above the gear G'. This attachment is adjustably connected to the beam A by the two slotted bars Q, which are bolted to the beam A, and the screw-bolts R, which pass through the beam A', in order that the machine may be adjusted to suit rows of any usual distance apart. To accommodate the shafts F F' to such adjustment, the coupling P is to consist of a sleeve and set-screw or equivalent device to allow the shafts to be coupled long or short, as may be required.

Instead of having the revolving cutters adapted to cut outwardly against stationary cutters which are set off at the side or sides of

the beam, they may be adapted to cut inwardly against stationary cutters, set inward from the said cutters. In the latter case a guard or guards may be employed for guiding the stalks in between the cutters.

5 In Fig. 4 I have shown a simpler means of driving the upright cutter-shaft from the driving-wheel, consisting of a chain belt, S, the direction of which is deflected from a vertical to 10 a horizontal plane by guides T.

The guides may consist of a pair of sheaves.

I do not broadly claim a stalk-cutter having revolving blades; nor do I broadly claim a series of cutters for cutting standing stalks in 15 pieces.

What I claim is—

1. The combination, with the main frame and its driving mechanism and cutters, of the

duplicate attachment consisting of a separate frame carrying cutters, and adjustable means 20 for setting said frames nearer to or farther from each other, substantially as shown and described.

2. The frame having the arm M at one side, the stationary cutters having their outer ends 25 supported by said arm, and the revolving cutters supported at the inner ends of the stationary cutters, said cutters having concave edges, and being arranged in pairs, one above another, and means for driving the revolving 30 cutters, substantially as shown and described.

ROBT. MILLER PIERSON.

Witnesses:

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