

C. V. DYER.  
REVOLVING CONICAL MOLDBOARD.

No. 191,036.

Patented May 22, 1877.

Fig: 1.

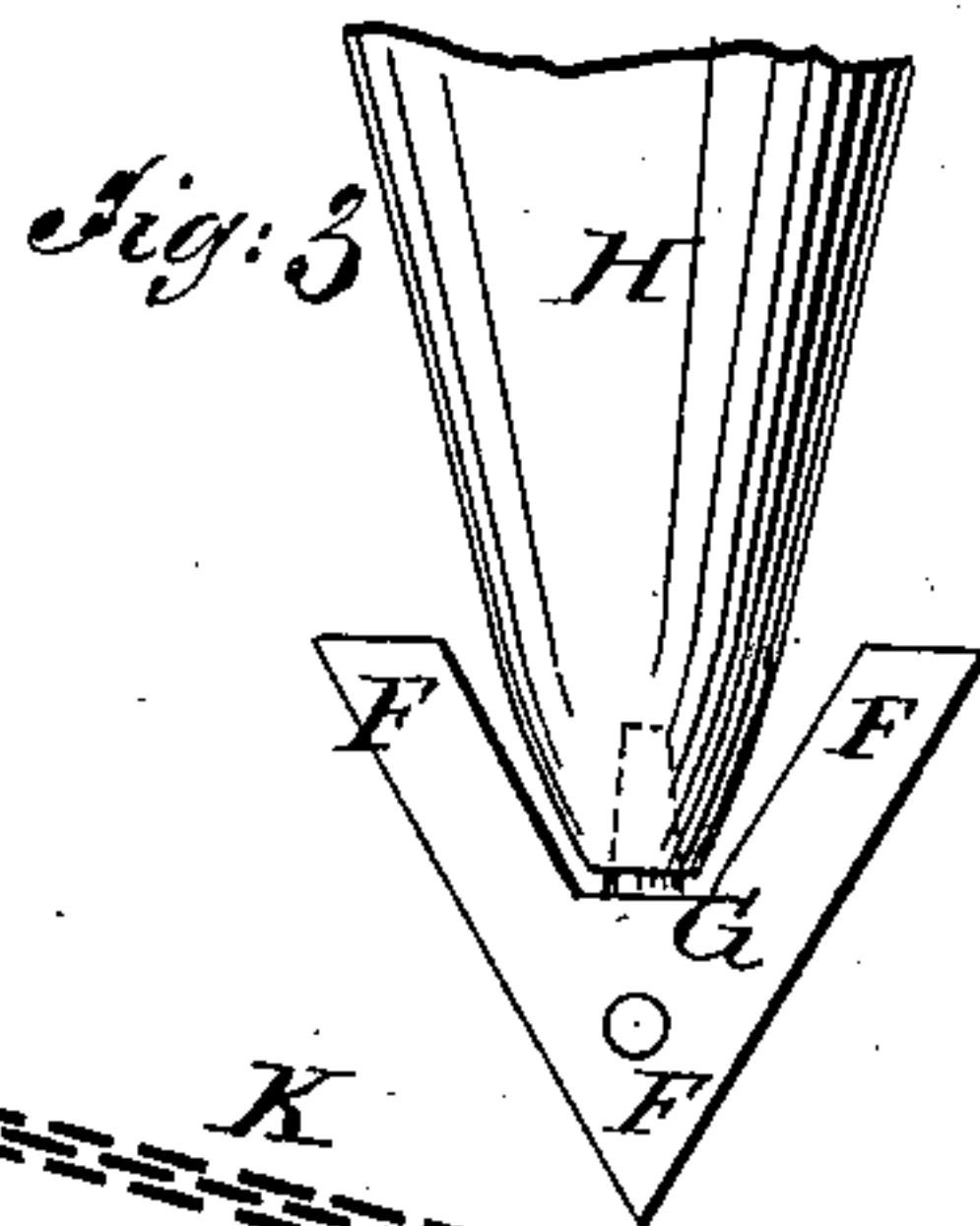
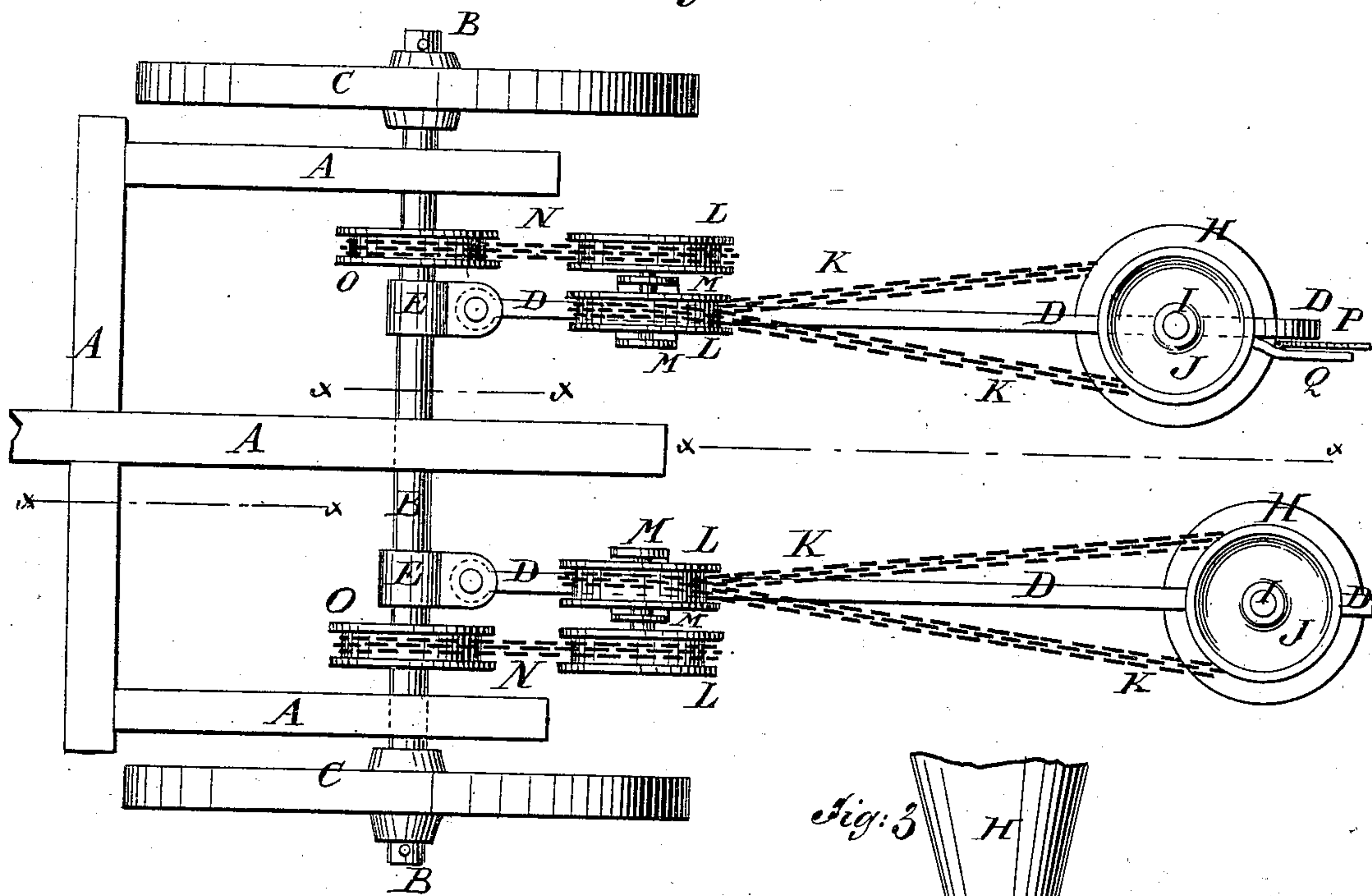
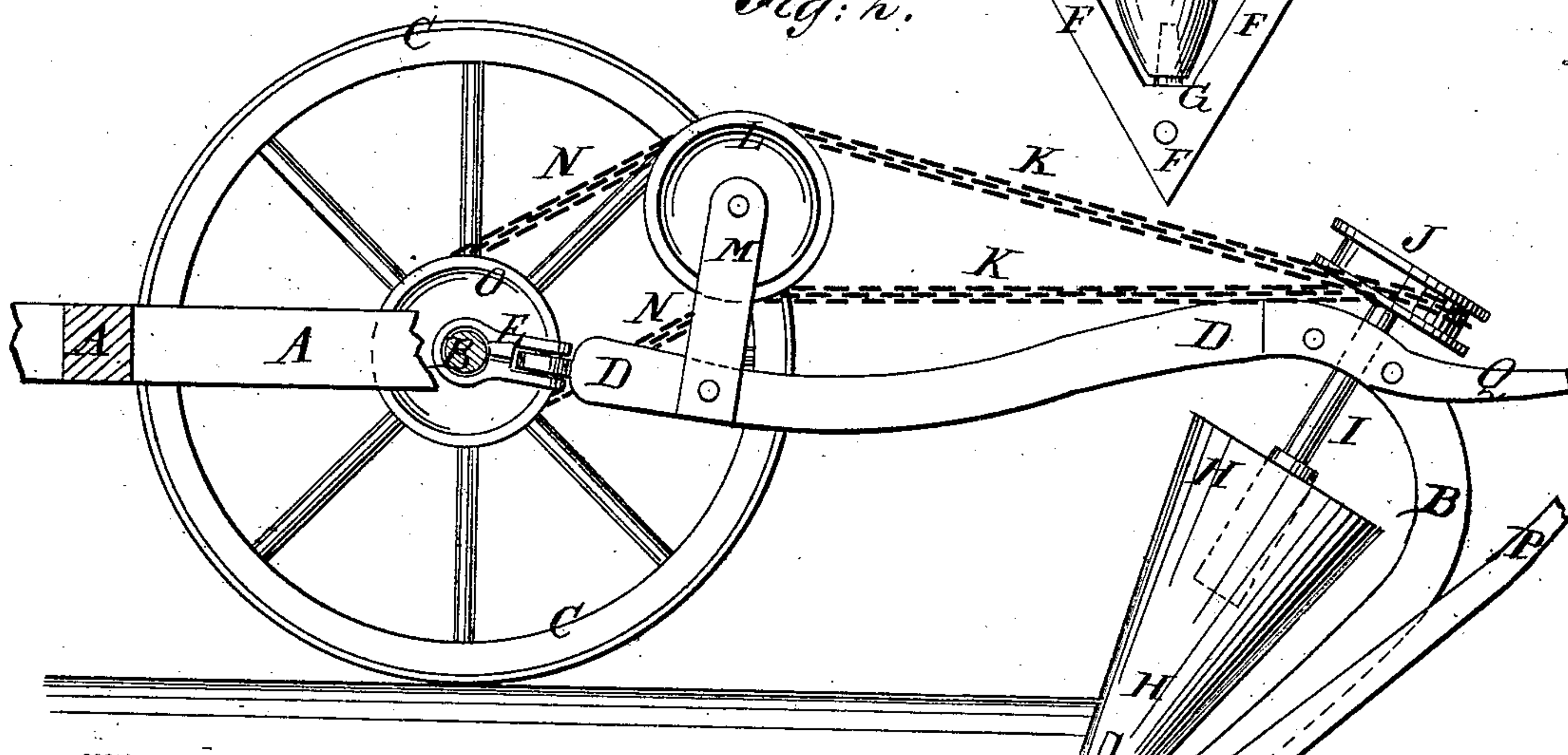


Fig: 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE

CHARLES V. DYER, OF HALLSVILLE, TEXAS.

## IMPROVEMENT IN REVOLVING CONICAL MOLD-BOARDS.

Specification forming part of Letters Patent No. **191,036**, dated May 22, 1877; application filed December 28, 1874.

*To all whom it may concern:*

Be it known that I, CHARLES VALENTINE DYER, of Hallsville, in the county of Harrison and State of Texas, have invented a new and useful Improvement in Revolving Conical Mold-Board Plow, of which the following is a specification:

Figure 1 is a top view of my improved plow. Fig. 2 is a vertical section of the same, taken through the line *xx*, Fig. 1. Fig. 3 is a front view of the plow-plate and the lower part of the conical mold-board.

Similar letters of reference indicate corresponding parts.

The invention is an improvement in the class of plows having a cylindrical rotating mold-board; and it relates to the construction and arrangement of parts, as hereinafter described, whereby the conical mold-boards are caused to rotate as the machine advances.

The invention consists in the combination of the revolving cones with the notched plow-plates and the plow-beams, and in the combination of the endless chains and the chain-wheels with the spindles of the cones, with the plow-beams, and with the axle and the wheels, as hereinafter fully described.

A represents a frame to which the draft is attached, and in bearings attached to which the axle B revolves. To the ends of the axle B are attached the wheels C, so that the said wheels may carry the said axle with them in their revolution. D are the plow-beams, to the upper and lower sides of the forward ends of which are pivoted, by bolts or rivets, the ends of straps E that pass around the axle B, as shown in Figs. 1 and 2, so that the rear ends of the plow-beams D may have a free vertical and lateral movement.

The rear parts of the beams D are curved downward to serve as standards for the plows F, which are bolted to their lower ends. The middle upper parts of the plows F are notched, as shown in Fig. 2.

To the lower parts of the standards of the beams D are attached or upon them are formed pivots G, which project upward into the notches of the plow-plates F, and enter holes

in the apices of the cones H. In the bases of the cones H are secured spindles I, which revolve in bearings attached to the beams D, and which carry the cones H with them in their revolution.

To the upper ends of the spindles I, above the beams D, are attached chain-wheels or pulleys J, around which pass the endless chains or bands K, which also pass around the double chain-wheels or pulleys L pivoted to the supports M. The supports M are attached to the forward parts of the beams D, as shown in Figs. 1 and 2. Around the double pulleys L also pass the endless chains N, which pass around pulleys or chain-wheels O attached to the axle B.

By this construction, as the machine is drawn forward the cones H are revolved, so as to turn the soil as it rises upon the plows F to one side, and at the same time break it up and pulverize it.

P are knives or scrapers, the lower ends of which are pivoted to the lower parts of the beams D in such positions that when their upper ends are moved forward their forward edges may come in contact with the surface of the cones H, and scrape off any soil that may adhere to said cones. The upper ends of the knives or scrapers P project into such a position that they may be conveniently reached and operated by the plowman, and may be provided with spring-catches, or other suitable devices for holding them in either position. Q are the handles, which are attached to the plow-beams D to enable the plowman to readily guide the plows.

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

The combination of the endless chains K and N and the chain-wheels J L O with the spindles I of the cones H, with the plow-beams D, and with the axle B and wheels C, substantially as herein shown and described.

CHARLES VALENTINE DYER.

Witnesses:

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