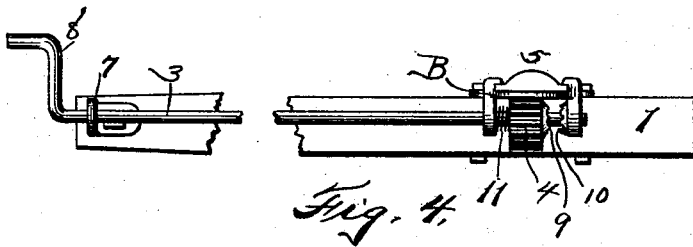
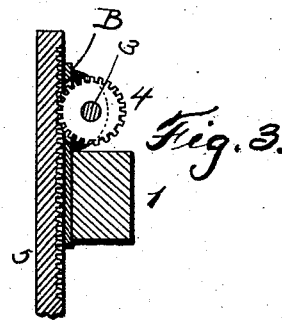
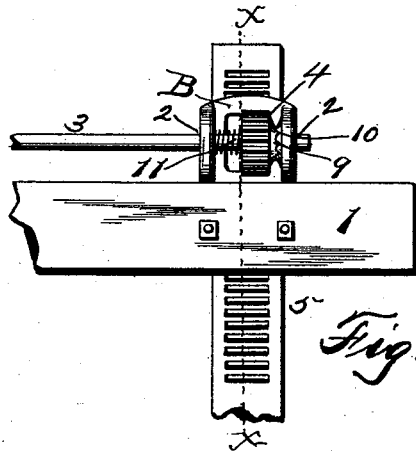
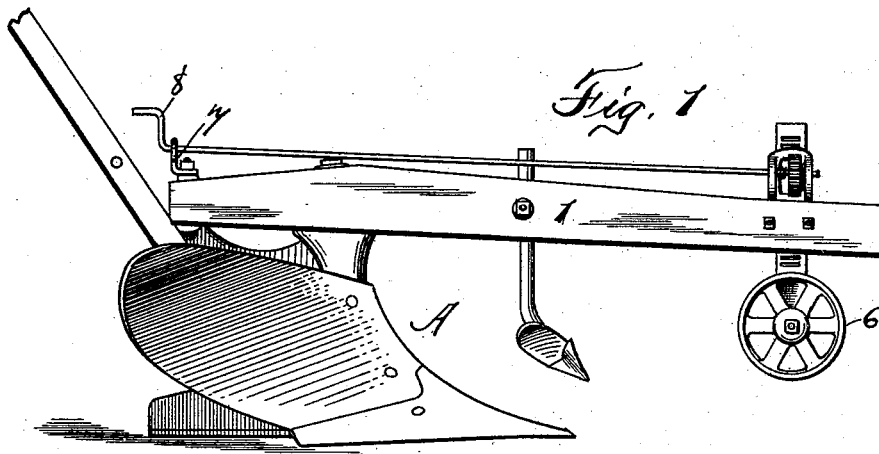


(No Model.)

F. B. ROWLAND.  
PLOW.

No. 491,137.

Patented Feb. 7, 1893.



WITNESSES:  
H. A. Carhart,  
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INVENTOR.  
Frank B. Rowland  
BY  
Smith & Benson  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

FRANK. B. ROWLAND, OF COLLAMER, NEW YORK.

## PLOW.

SPECIFICATION forming part of Letters Patent No. 491,137, dated February 7, 1893.

Application filed April 13, 1892. Serial No. 428,951. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK. B. ROWLAND, of Collamer, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Plows, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to plows, and particularly to the means for regulating the depth of the cut.

My object is to produce a device by which I am enabled to regulate the depth of the cut of the plow without leaving the plowshare; simple in construction and of great utility.

My invention consists first, in mounting the beam wheel adjustably upon the forward end of the beam; and second, in providing means for operating the same, at the rear end thereof; and in the several other novel features of construction and operation hereinafter described and specifically set forth in the claim hereto annexed.

It is constructed as follows, reference being had to the accompanying drawings, in which

Figure 1, is a side view of the plow complete, showing my improvement attached thereto. Fig. 2, is an enlarged side view of the forward end of the beam, with the wheel detached. Fig. 3, is a vertical section on line *xx*, Fig. 2. Fig. 4, is a top plan view of the beam, showing the means for raising the wheel, the center of the beam being broken away.

A—, is a plow, constructed in the ordinary way, having a beam —1—. Upon the forward end of the beam I erect the bracket —B— having openings —2— in its sides, opposite each other. 3—, is a shaft, passing, at its forward end through said openings in the bracket and provided with a cog —4— adapted to engage with the vertically mounted plate —5—, having on its lower end the beam wheel —6—. The opposite end of the shaft —3— is mounted upon a bracket —7—, having at its ex-

treme end a crank arm —8— by which it is adapted to be rotated.

Upon one of the lateral faces of the cog —4— I construct ratchets —9— adapted to engage with recesses —10— upon the inner face of the bracket —B—, and mounted upon the shaft —3— and within the bracket and upon the opposite side of the cog —4—, is a spiral spring —11—, for the purpose of always producing a tension to keep the cog in engagement with the ratchet portion of the bracket.

My invention is operated as follows: When it is desired to raise or lower the wheel —6—, I take hold of the crank arm —8—, first pulling it rearwardly so as to disengage the ratchet from the bracket, and then rotate the shaft —3— to the right or to the left, accordingly as I may desire to raise or lower the wheel —6—. When the wheel —6— has been adjusted to the desired height for the purpose of regulating the cut of the plow, the spring —11— causes the shaft —3— to move forward and again the cog engages with the bracket, where the wheel —6— is held by the engagement of the slots in the piece —5— with the cog —4— at the desired position.

What I claim is:

The combination with the plow beam, of a bracket mounted thereon, the vertically mounted plate having a wheel at its lower end and a shaft mounted upon the beam, having a cog adapted to rotate therewith and engaging with the opening in said plate, one face of said cog being stepped and adapted to engage with the recess in the bracket, and a spring interposed between the opposite face of the cog and the inner face of the bracket, as set forth.

In witness whereof I have hereunto set my hand this 31st day of March, 1892.

FRANK. B. ROWLAND.

In presence of—

C. W. SMITH,

HOWARD P. DENISON.