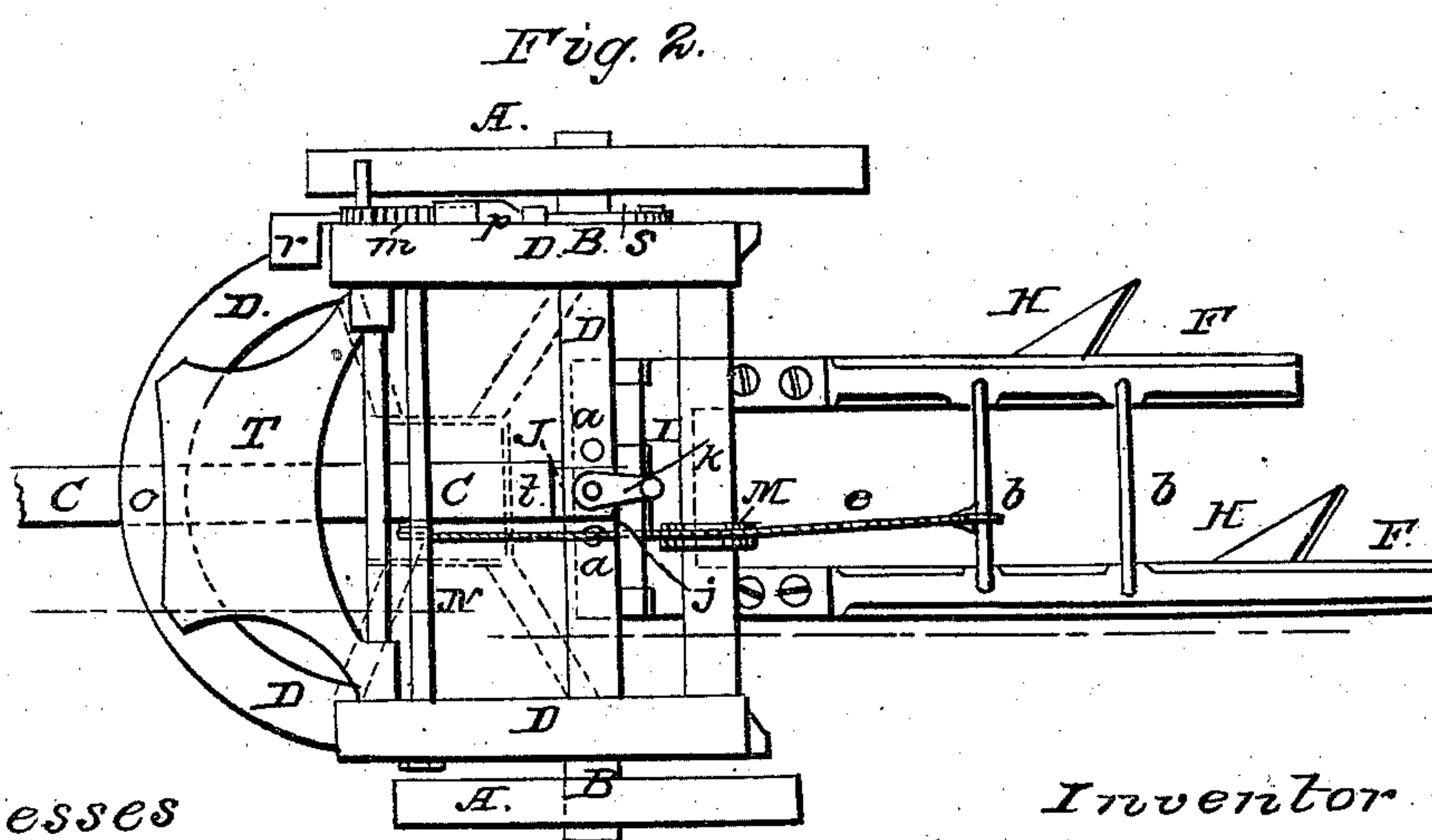
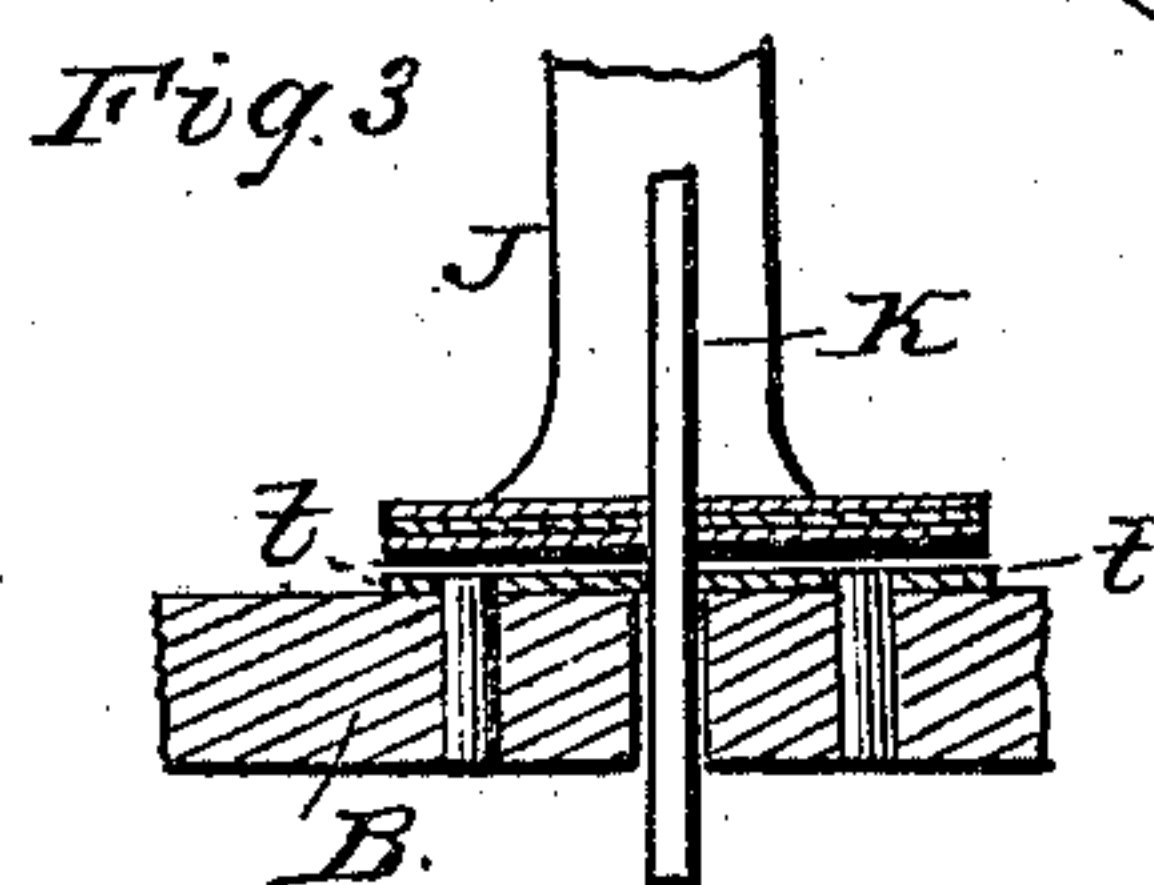


Wheel Plow.

Patented Aug. 11, 1868.



S. C. Lemon
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United States Patent Office.

ANDREW SMITH AND WILLIAM P. WATSON, OF PORTLAND, OREGON, AS SIGN-
ORS TO WILLIAM P. WATSON AND T. J. CARTER.

Letters Patent No. 80,838, dated August 11, 1868.

IMPROVEMENT IN GANG-PLOW.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, ANDREW SMITH and WILLIAM P. WATSON, of Portland, in the county of Multnomah, and State of Oregon, have invented a new and improved Gang-Plow; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal vertical section.

Figure 2 is a top view.

Figure 3 is a detached vertical section, showing the adjustable coupling by which the plow-beams are connected to the axle.

The object of this invention is to provide a cheap, convenient, and easily-adjustable gang-plow, which will clear itself of obstructions and work easily, the plows swinging freely sideways, so as to avoid obstacles, and being readily elevated out of contact with the soil, when going to and returning from the field.

In the drawings, A A indicate the wheels; B, the axle; C, the draught-beam; D, the frame; E, the driver's seat; F F, the plow-beams; G G, the plow-standards; and H H, the plows.

The forward ends of the plow-beams F F are hinged to a double or folded plate, I, which is attached to a vertical plate, J. The top of the latter plate is provided with a lug, *j*, through which a vertical rod, K, passes, extending down through the plate I, and through the axle itself. The upper end of this rod is provided with a crank, *k*, within easy reach of the driver's seat. Just below the crank, the rod screws through a plate or bearing, L, so that by turning the crank, *k*, the rod screws up or down, carrying the plate J up and down, and, with said plate, raising and lowering the hinge-plate I, and the forward end of the plow-beams, which are attached to the hinge-plate. Different holes *a a* are provided in the frame D, and the axle, by which the rod K can be set to one side or the other, and the plows made to run more or less "to land."

The plow-beams are connected by braces *b b*, and a rope or chain, *c*, attached to them, passes up over a roller, M, and forward to another roller, N, to which the chain is attached, and which serves to wind it up and raise or depress the plows at pleasure. *m* is a crank-wheel, attached to the end of the roller N, by which to operate the latter. Its rim is formed into a ratchet, and operates in connection with a pawl, *p*, which prevents it from running back and lowering the plows. A foot-lever, *r*, serves to throw up the ratchet and drop the plows when necessary.

The draught-beam C is capable of swinging slightly on the frame A at *o*, and at its rear end is provided with a clevis, *t*, having several holes in a transverse line across the frame, so that by bolting the rear end of the tongue or draught-beam to the axle at one point or another, the draught of the instrument can be changed at pleasure. Or, instead of this construction, the tongue may be firmly attached to the lower part of the frame, and the latter being made in the form of a semicircle or a horse-shoe, as seen in fig. 1, can be slightly rotated to one side or the other, and clamped in the new position by the couplings *s s*, thus producing the same effect in changing the draught, as is above described. A foot-rest, T, may be provided, and may be made to swing on a pivot or hinge, so that it can be turned up out of the way if desired.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the rod K, plate J, through which the rod K screws, and which is attached to the hinge-joint I, hinge-plate I, plow-beams F F, and standards and plows G H, substantially as described.
2. The combination of the hinged beams F F, cord *c*, rollers M and N, ratchet *m*, pawl *p*, and foot-lever *r*, substantially as described.
3. Attaching the rear end of the tongue to the axle, by means of a clevis, *t*, and a series of holes arranged as described, by which the draught can be changed, substantially as above set forth.

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WM. P. WATSON.

Witnesses:

C. M. CARTER,
O. P. MASON.

Witnesses:

C. A. PETTIT,
SOLON C. KEMON.