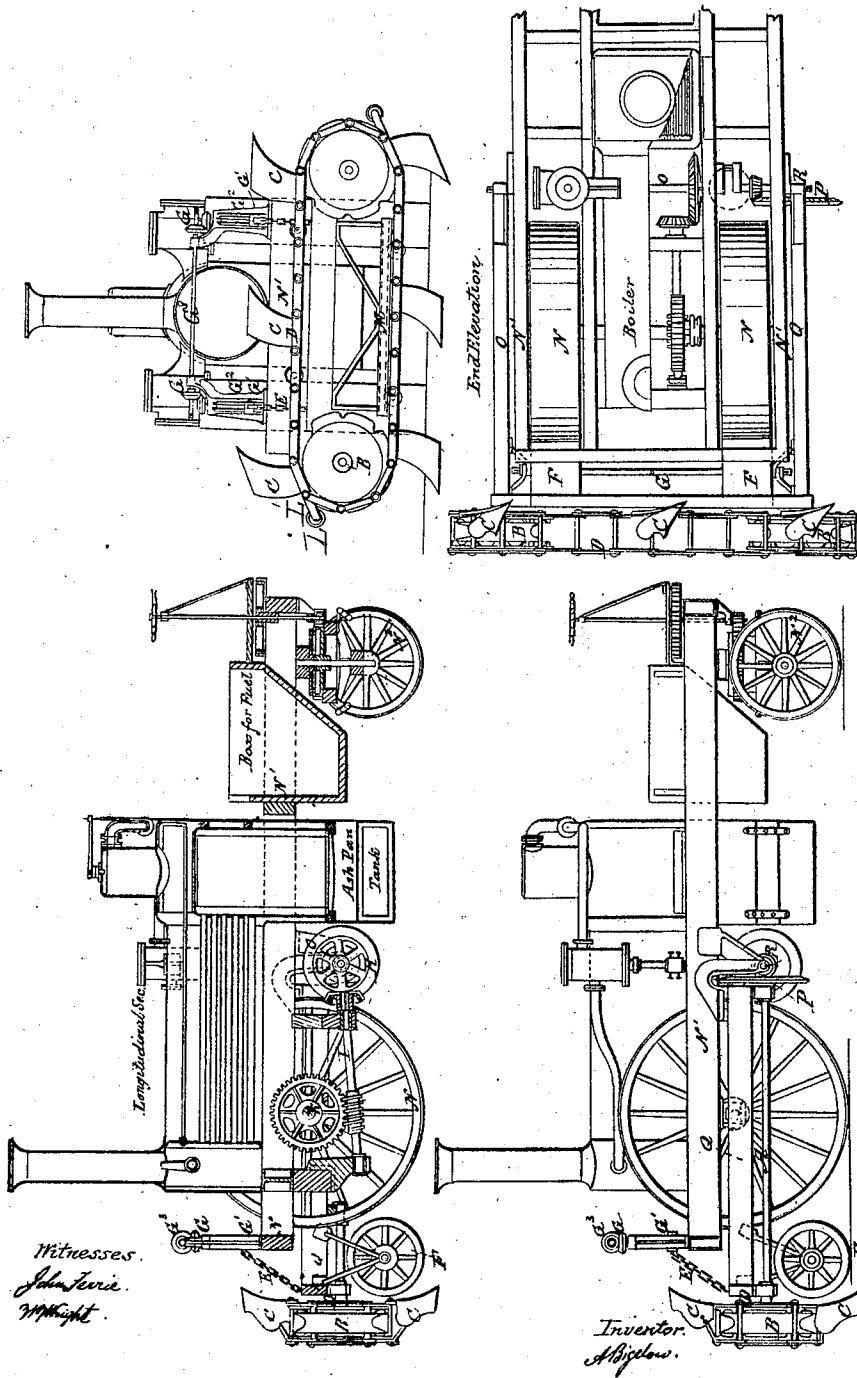


A. BIGELOW.

Steam-Plow.

No. 28,732.

Patented June 19, 1860



UNITED STATES PATENT OFFICE.

ALBERT BIGELOW, OF HAMILTON, UPPER CANADA.

IMPROVEMENT IN STEAM-PLOWS.

Specification forming part of Letters Patent No. 28,732, dated June 19, 1860.

To all whom it may concern:

Be it known that I, ALBERT BIGELOW, of the city of Hamilton, in the county of Wentworth and Province of Canada, have invented a new and Improved Mode of Plowing by Steam-Power; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference thereon.

To enable others skilled in the art to make and use my machine, I will proceed to describe its construction and operation.

The machine is erected and properly secured to a good substantial framing of timber, which frame *N'* is carried by a pair of driving-wheels figured *N*, and in front by a pair of smaller or leading wheels, *N*², provided with ordinary gearing to be worked by hand or by the engine for the purpose of guiding it right or left.

The machine is to be provided with a locomotive or other boiler, and a pair of small high-pressure engines acting upon a transverse or main shaft figured *O* transmit the power through the medium of the bevel-wheels figured *P* in the elevation and plan views on the drawing. These bevel-wheels transmit the power for the transverse shaft *O* to the shaft lettered *A*, at the end of which there is a drum or rag-wheel, *B*, revolving with the shaft *A*, and at the opposite side of the frame there is another drum or rag-wheel *B* and shaft. This drum is not driven by gearing, but by an endless chain (rag-chain) passing over them, the two drums being required to preserve a proper distance of travel. The rag-chain is figured *D*. On this chain there are fixed six plows, as shown in the drawing, and lettered *C C C*, &c. By further reference to the drawing it will be seen that these plows are placed at a certain angle, by which they are made to cut parallel furrows at a given pitch or distance from center to center. Furthermore, by reference to the drawing, there is a radius frame or arm working on a joint, the arm figured *Q* and the joint *R*, the

object of which is to regulate the depth of the plowing and to keep the plows at any given depth when once set, which is done by means of the chain figured *E* and the adjusting mechanism figured *G G' G² G³*. There are a pair of small wheels attached to the under side of this frame, (figured *F*), so as to allow for any irregularity in the surface of the ground over which the machine may be traveling. The machine, when at work, is only connected with the radius frame or arm by the joint figured *R*, thus leaving the plows free, by which means it is clear they cannot partake of as much of the pitching motion of the machine when traveling on rough ground as it would otherwise do.

It is further intended, although not shown in the drawing, to make the bearings of the small wheels behind, (lettered *F*), adjustable by means of a screw, by which means the depth of the plows in the soil can be regulated.

There may be two worms and two wheels, the worms having different velocities. The slow speed is used when the plows are at work, and the quick speed for propelling the machine along a common road, &c. The speeds are changed by means of clutch-boxes or any other suitable contrivance. This part of the machine does not form any important member of my invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The arrangement, with the main supporting-frame *N'* and with the endless chain *D* and plows *C C C*, of the auxiliary radius-frame *Q R*, wheels *F*, transverse shaft *O*, and longitudinal shaft *A*, substantially in the manner and for the purposes herein described.

2. The arrangement of the chains *E*, radius-frame *Q R*, and adjusting mechanism *G G' G² G³*, substantially as and for the purposes set forth.

A. BIGELOW.

Witnesses:

JOHN FERRIE,
J. B. WAIGHT.