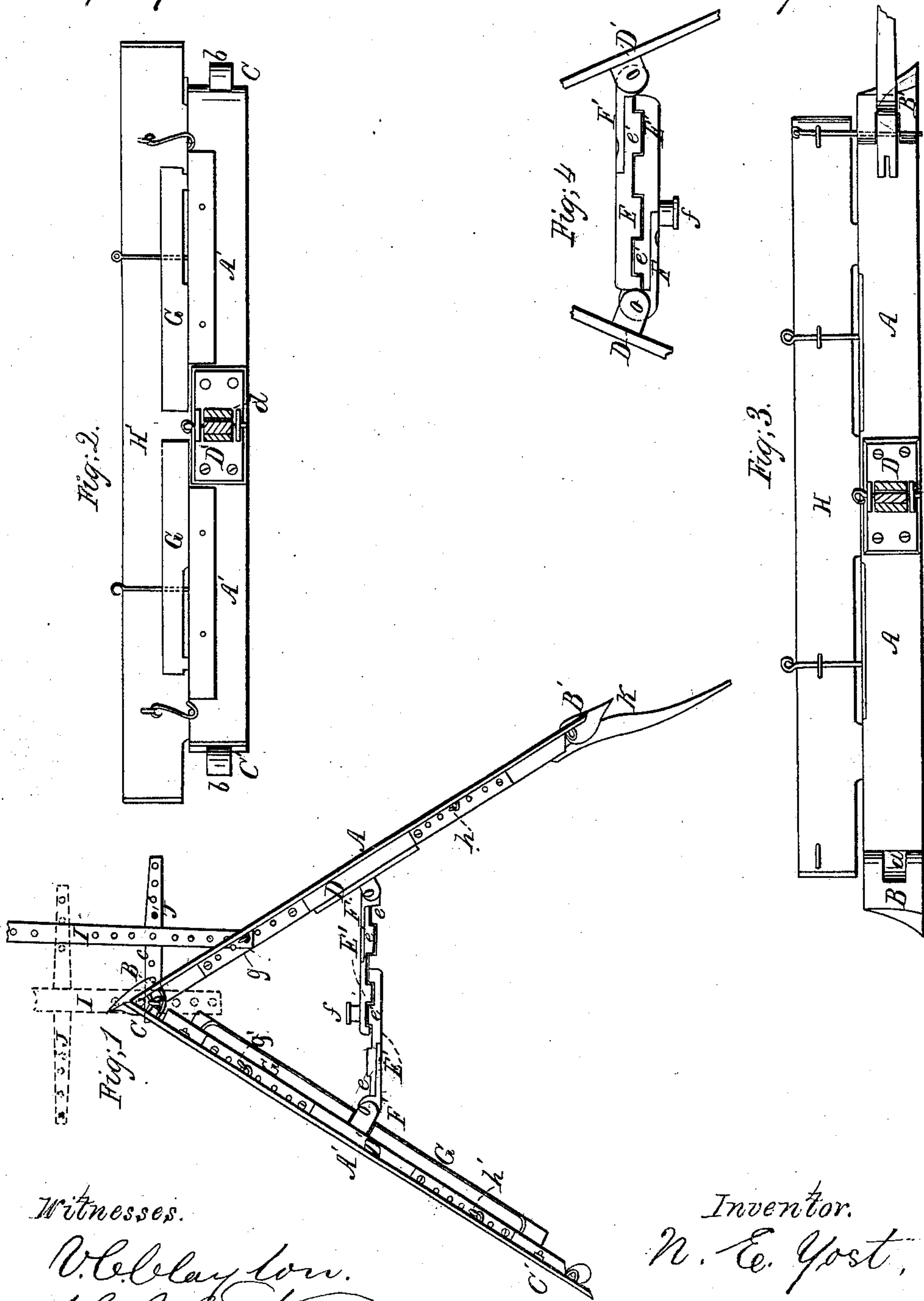


*N.E. Yost,*  
*Road Scraper,*  
*No 78,713.      Patented June 9. 1868*



Witnesses.

*W. C. Clayton.*  
*J. G. Clayton.*

Inventor.

*N. E. Yost.*

by his Attorneys. *J. C. Clayton*

# United States Patent Office.

NICHOLAS E. YOST, OF CORRY, PENNSYLVANIA.

*Letters Patent No. 78,713, dated June 9, 1868.*

## IMPROVED ROAD-SCRAPER.

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

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, NICHOLAS E. YOST, of Corry, in the county of Erie, and in the State of Pennsylvania, have invented certain new and useful Improvements in Machines for Scraping and Making Roads; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification.

Figure 1 is a plan view.

Figures 2 and 3 are vertical sections.

Figure 4 is a detail showing extension-brace.

The nature of my invention consists in the combination and arrangement of the mechanism hereinafter described, for the purpose of making an adjustable road-maker or scraper.

A A' are two timbers, some sixteen feet long, twelve inches wide, and four inches thick, and faced on the outside edge and bottom with sheet iron, to make it more durable.

B B' are two plough-points, secured by bolts or screws to the opposite ends of timber A. A few inches from the edge of these points B are hinge-mortises *a a*, to receive the hinge-tongues *b b* of the castings C C', which are secured by bolts or screws to the opposite ends of timber A'. The tongue of casting C may be inserted in the mortise of point B, and a bolt, *c*, be passed through them, thus hinging together the forward ends of the two timbers A A'.

At the centre, and on the inner faces of timbers A A', are bolted the castings D D', which are provided with hinge-mortises *d d*.

An extension-brace, (formed of two pieces of timber, E E', made adjustable by means of mortises *e*, tongues *e'*, and bolt *f*,) provided with cast tongues F F' at each end, which are secured by bolts in the mortises of castings D D', serve to brace firmly apart, at the desired angle, the two timbers A A'.

G is a wooden or metallic box, secured to the upper inner edge of timber A', and is intended to be loaded with stones, brick, &c., to give weight to the land-side of the scraper.

H H' are two boards, eight or ten inches wide, and equal in length to the timbers A. The forward ends of these boards are secured together by the same bolt, passing through two staples, which secures the forward ends of timbers A A'. Other bolts, *g h*, *g' h'*, passing through staples in these boards, secure them firmly to the timbers A A'.

I is the tongue, having pivoted, about eighteen inches from the butt, the cross-bar J. The tongue J is secured to the scraper by bolt *g*, which secures board H to mould-board timber A. At the same time bolt *c* passes through the cross-bar J, securing it firmly at the junction of timbers A A'.

K, the handle for guiding the mould-board.

The operation of my invention is as follows:

My improved "road-maker" is intended to be used for making, scraping, or mending roads.

It is preferable to have the road first broken up by a plough.

Suppose, now, I have a thirty-two-foot road, clear of ditches, to scrape or mend. I set my machine so that the outer width, at the rear, shall be sixteen feet, as shown in the drawings. The team is then hitched, and the scraper arranged so that the land-side A shall just clear the edge of the ditch. The team is then started, and it draws along the scraper, the mould-board A' scraping and smoothing the road, and throwing up a furrow in the centre. When I come to a hollow in the road, I can raise the mould-board A', by means of handle K, and leave a little more soil at that point. When I have gone the desired distance up the road, the scraper is turned around, and I come down in like manner, the land-side now being next to the other ditch, and the furrow being thrown to the centre, upon the other furrow. When I have thus gone up and down the road as often as is desirable, I change the attachment of the tongue from a side draught to a direct draught. This is done simply by detaching the tongue, as above described, and then fastening it simply by the bolt *c*, at the junction of timbers A A'. I then draw the scraper right up the centre of the road, equally dividing and distributing the furrow to the right and left.



In making or mending those roads where it is inconvenient or impossible to turn the scraper entirely around, I first detach the tongue and team, after going up the road. I then remove bolt *c*, and simply bring together the other ends of timbers A A' and boards H H', and secure them together, and also the tongue I, by means of bolt *c*, as before described. The scraper is then drawn down the road, the land-side retracing the same track it made in going up.

The extension-brace E E' enables me to easily contract or expand my scraper to suit the width of the road to be operated upon.

Experience has shown that roads can be mended much cheaper and better by my improved scraper than by any other known means.

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

1. The reversible timbers A A', pivoted upon a centre brace, when constructed and operating substantially as and for the purposes set forth.
2. The timber A, in combination with the two plough-points, B B', constructed and operating substantially as and for the purposes set forth.
3. The timber A', in combination with the two castings C C', constructed and operating substantially as and for the purposes set forth.
4. The extension-brace E E', in combination with mortise *e*, tongues *f*, bolt *g*, and castings D D', constructed and operating substantially as and for the purposes set forth.
5. The tongue I and cross-bar J, when secured to the scraper by means of bolts *c* and *g*, and in combination with the timbers A A', constructed and operating substantially as and for the purposes set forth.

In testimony that I claim the above-described invention, I have hereunto signed my name, this 15th day of February, 1868.

NICHOLAS E. YOST.

Witnesses:

JO. C. CLAYTON,

L. E. GUIGNON.