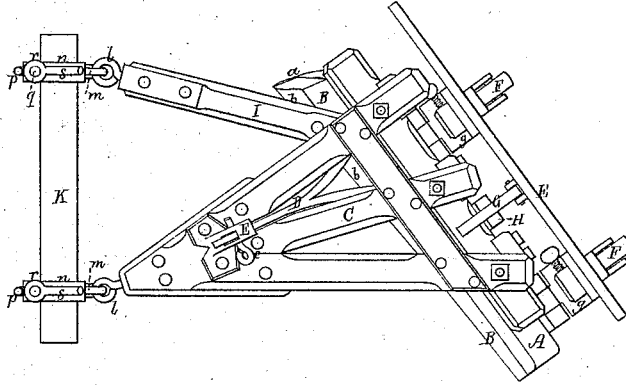


**B. GOODRICH.**  
**Road-Scraper.**

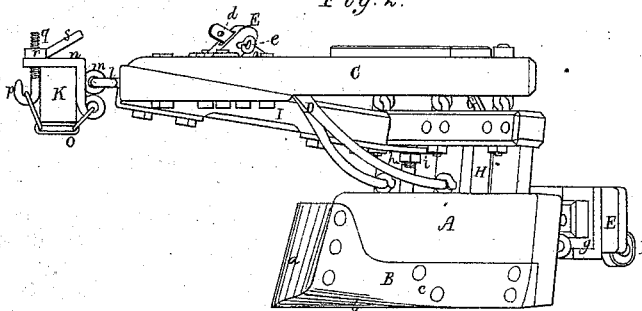
No. 162,746.

Patented May 4, 1875.

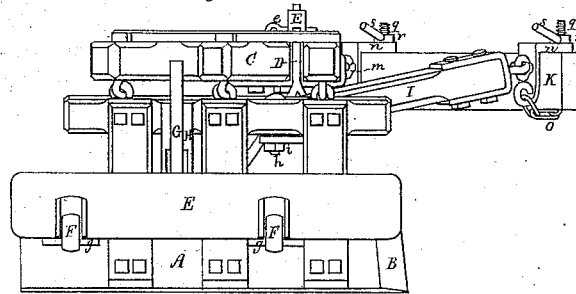
*Fig. 1.*



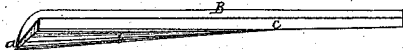
*Fig. 2.*



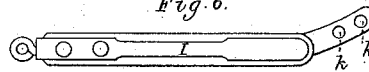
*Fig. 3.*



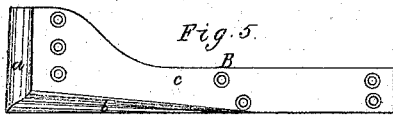
*Fig. 4.*



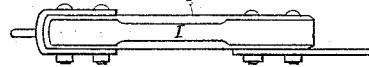
*Fig. 6.*



*Fig. 5.*



*Fig. 7.*



*Witnesses*  
*S. M. Piper*  
*L. N. Holler*

*Barnard Goodrich*  
*by his attorney*  
*R. M. Ledy*

# UNITED STATES PATENT OFFICE.

BARNARD GOODRICH, OF EXETER, ASSIGNOR TO HIMSELF AND GEORGE H. TUCK, OF STRATHAM, NEW HAMPSHIRE.

## IMPROVEMENT IN ROAD-SCRAPERS.

Specification forming part of Letters Patent No. 162,746, dated May 4, 1875; application filed October 28, 1874.

*To all whom it may concern :*

Be it known that I, BARNARD GOODRICH, of Exeter, of the county of Rockingham and State of New Hampshire, have invented a new and useful Improvement in Road-Scrapers; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Fig. 1 is a top view, Fig. 2 a side elevation, and Fig. 3 an end view, of a road-scraper as improved by me. Fig. 4 is a top view, and Fig. 5 a front elevation, of its plow or cutter.

My invention relates, mainly, to the cutter or scraper, and its means of support and adjustment.

In such drawings A denotes the cutter-carrier or frame, furnished with a metallic plow or cutter, B, having horizontal and vertical cutting or scraping flanges *a b*. These flanges project from the body *c* of the cutter, and have curved inner faces. The object of the vertical scraping-flange *a* is to estop and turn inward upon the lower flange the earth that would be liable to roll up or over, and be discharged from the end of the latter. The carrier A is hinged to a triangular drag, C, and provided with an arm, D, which, pivoted to the carrier, and arranged as shown, extends up through a slotted projection or ear, E, fixed on said drag. The arm D has a series of holes, *d*, made in its upper part, or that portion which is to slide through the ear. A pin, *e*, going through the ear and either of the holes, serves to hold the arm in connection with the ear. By means of the said arm, pin, and ear, the angle of inclination of the cutter and its carrier with the ground, or with the drag, may be varied more or less, as may be required. Furthermore, there is hinged to the carrier by two bent arms, *g g*, a board, E, provided with two casters, F F, arranged with it, as shown. A strut, G, pivoted to the board, serves, when sprung into a socket-piece, H, fixed to the carrier, to hold the board into a right angle with the carrier, in order for the casters to rest and run upon the ground, and main-

tain the cutter or scraper B out of action therein. When the board is raised up into a vertical position the casters will be off, and the cutter will be on the ground. There is pivoted to the carrier A, by means of a screw-bolt, *h*, (provided with a nut, *i*,) a tongue, I, shaped as shown in top view in Fig. 6, and in side view in Fig. 7. At its rear the tongue is provided with a series of holes, *k k*, for reception of the bolt *h*, which may go through either of them, such being for varying the angle of the cutter to the line of draft. The drag and the tongue are provided with devices for connecting them with a carriage-axle, K; to this and each is pivoted, by means of eyes *l m*, to one of two right-angular bars or shackles, *n n*, each having a chain, *o*, projecting from its lower part or rod. Furthermore, each of the shackles has a hole through it, to receive the shank of a hook, *p*, such shank being provided with a screw, *q*, and a nut, *r*, furnished with a handle, *s*. On hitching the hook into one of the links of the chain, and setting up the nut, the clamp, when spanning the axle, may be strongly confined thereto.

In the road-scraper, as described, I claim as my invention as follows, viz:

1. In combination with the cutter B and its carrier A, connected with the drag C, as described, the board E, provided with casters F F, and connected with the carrier by bent arms *g g* hinged thereto, all substantially as specified.
2. The combination of the adjustable tongue I, as described, with the cutter-carrier A and the drag C, arranged and connected with such carrier, all as shown and described.
3. The combination of the right-angular shackle *n*, the chain *o*, the hooked screw *p q*, and the nut *r*, all constructed, arranged, and applied to the axle K and the drag C or tongue I, substantially as specified.

BARNARD GOODRICH.

Witnesses:

R. H. EDDY,  
J. R. SNOW.