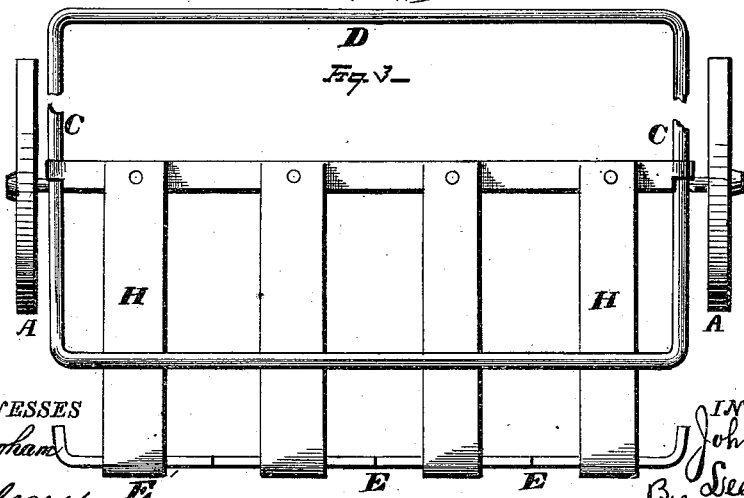
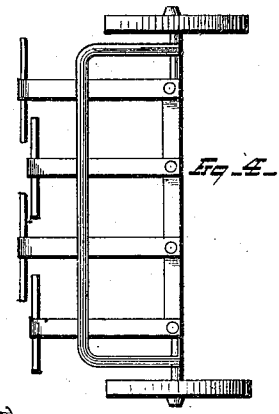
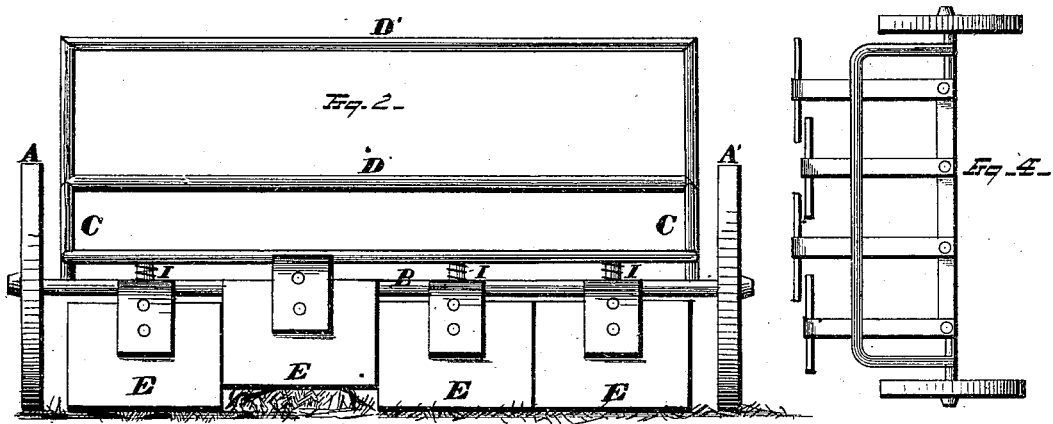
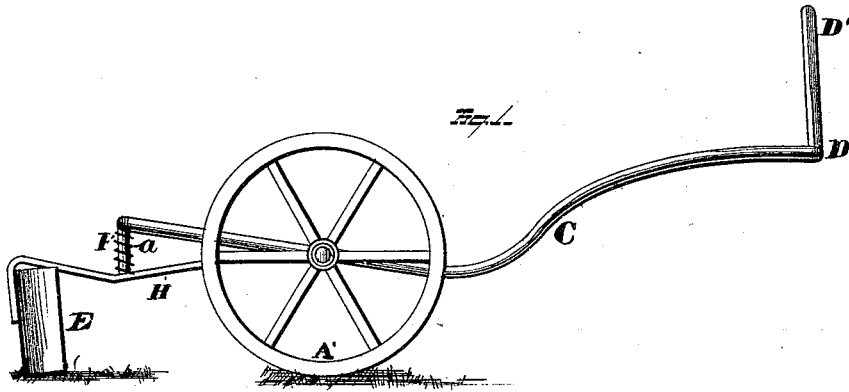


J. MAITLAND.  
ROAD-SCRAPER.

No. 186,941.

Patented Feb. 6, 1877.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

JOHN MAITLAND, OF CLEVELAND, OHIO.

## IMPROVEMENT IN ROAD-SCRAPERS.

Specification forming part of Letters Patent No. **186,941**, dated February 6, 1877; application filed June 29, 1876.

### *To all whom it may concern:*

Be it known that I, JOHN MAITLAND, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Road-Scrapers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in road-scrappers, which may be used with or without horse-power.

In the drawing, Figure 1 represents a side elevation of the machine; Fig. 2, a rear elevation, and Figs. 3 and 4 are plan views.

My invention consists in certain details of construction in a road-scraper, as hereinafter described, and pointed out in the claims.

Referring to the drawings, A A' are the wheels revolving on axle B. C is the frame, to which the handles are attached, and from which project the headed guide-pieces I. It is fixed to the axle, to which are secured the spring-shanks H. These spring-shanks carry the hoes or scrapers, and are each provided with a hole, through which project the guide-pieces I, nut or rivet headed on their lower ends to retain the shanks. Instead of the guide-pieces I the shanks of the hoes may move between two outside guides or plates. These guide-pieces I are surrounded with springs  $\alpha$  fastened to their upper ends and abutting against the spring-shanks operating to keep the scrapers on the surface of the road. The scrapers or hoes E are attached to the spring-shanks H by rivets or in any other manner. D D' are the handles arranged one above the other, the upper one of which comes into use when it is desired to discharge

or raise the scrapers, and after the lower handle is in an inconvenient position for the exercise of power.

To use the machine for horse-power the handle is removed, and the parts required are attached to the axle. The power can also be applied in the rear of the scrapers by simply extending a handle from the frame in the opposite direction. Instead of the arrangement shown in Fig. 3, the hoes may be fixed relatively to each other in the quincunx order shown in Fig. 4 without affecting the spirit of my invention, inasmuch as the hoes, operating together in this position, will still present a continuous and unbroken operating surface.

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

1. In a road-scraper the combination, with the frame C extending in rear of the truck-axle, of the independent scrapers E and spring-shanks H, the latter rigidly secured to a cross-piece arranged over, or in close proximity to, the truck-axle, substantially as and for the purpose specified.

2. In a road-scraper the combination of the upper and lower handles D' D with the frame C, to which the scrapers are secured by means of spring-shanks H, substantially as and for the purpose specified.

3. The combination, with a wheel-truck, whose axle directly supports the spring-shanks H, of scrapers E and guides I, substantially as and for the purpose described.

In testimony whereof I have signed my named to this specification in the presence of two subscribing witnesses.

JOHN MAITLAND.

Witnesses:

FRANCIS TOUMBEY,  
EDWARD WALCH.